

**THE CALLED-IN PLANNING APPLICATION BY OXFORDSHIRE COUNTY COUNCIL FOR THE
DUALLING OF THE A4130 CARRIAGEWAY, CONSTRUCTION OF THE DIDCOT SCIENCE
BRIDGE, ROAD BRIDGE OVER THE APPLEFORD RAILWAY SIDINGS AND ROAD BRIDGE OVER
THE RIVER THAMES, AND ASSOCIATED WORKS BETWEEN THE A34 MILTON INTERCHANGE
AND THE B4015 NORTH OF CLIFTON HAMPDEN, OXFORDSHIRE (APPLICATION NO.
R3.0138/21)**

APP/U3100/V/23/3326625

**CLOSING SUBMISSIONS
ON BEHALF OF OXFORDSHIRE COUNTY COUNCIL
AS APPLICANT FOR PLANNING PERMISSION¹**

1. These closing submissions on behalf of Oxfordshire County Council (“**OCC**”) as Applicant for planning permission for the HIF1 Scheme (“**the Scheme**”) will deal with each of the Inspector’s 14 main issues² in turn, along with any additional issues that have arisen during the inquiry process, and in doing so will address the matters about which the Secretary of State particularly wishes to be informed³.

2. Before turning to those detailed issues, it is important to keep the overall picture in mind. There is a compelling need for this Scheme. It will provide modern, fit for purpose transport infrastructure that is needed for the thousands of homes and jobs planned for the area to come forward. The Scheme is a fundamental plank of the adopted development plans for the area and will enable their ambitions to be realised. Very significant benefits flow from this: meeting housing and employment need, enabling economic growth in an area which is vitally important to the local, regional and, indeed, national economy, and doing so in a way that will facilitate sustainable modes of travel. The Scheme will have environmental benefits, particularly in taking existing and future

¹ Oxfordshire County Council will provide separate closing submissions in relation to the inquiry into the Compulsory Purchase Order, Side Roads Order, and Bridge Scheme (NATTRAN/SE/HAO/286) (DPI/U3100/23/12).

² Inspector’s note dated 12 January 2024 (CDR.3).

³ Letter from Ministry of Housing, Communities and Local Government, 25 July 2023 at para. 7 (CDA.21).

traffic away from villages, small country roads and historic bridges, and improving residential amenity. The need and benefits of the Scheme can only attract very substantial weight. The adverse effects are, by contrast, limited in scope and number. It is inevitable that some such effects will arise when providing large-scale infrastructure such as the Scheme, but the Scheme has been sensitively designed to ensure that the effects are minimised and accompanied by appropriate mitigation so far as is necessary. Overall, the Scheme is important and urgently needed and should be allowed to come forward.

Issue 1: the need for and benefits of the Scheme

Enabling housing and employment growth in the Local Plans

3. The need for the Scheme derives most directly from the existing and planned housing and employment growth in Science Vale, which straddles the boundaries of Vale of White Horse District Council and South Oxfordshire District Council, includes the three centres for science and technology at Harwell Campus, Culham Science Centre⁴ and Milton Park, and is supported by the larger settlements of Didcot, Grove and Wantage. Science Vale is recognised and defined in the South Oxfordshire Local Plan 2011-2035 (“**SOLP**”), the Vale of White Horse Local Plan 2031 Parts 1 and 2 (“**VWHLPP1**” and “**VWHLPP2**”), and OCC’s Local Transport and Connectivity Plan 2022-2050 (“**LTCP**”)⁵.
4. It is an area of innovation-led economic growth that is home to a significant proportion of the region’s scientific research and development and high technology businesses. It includes two Enterprise Zones (Science Vale UK and the Didcot Growth Accelerator). It anchors the Oxfordshire Knowledge Spine, which is a key north-south corridor of expanding employment opportunities that covers Bicester, Oxford and Science Vale. The VWHLPP1 describes it as “*an internationally significant location for innovation and science-based research [and] business*”⁶. The Inspector for the SOLP referred to “*the*

⁴ Now renamed the Culham Campus, although referred to in much of the documentation as the Culham Science Centre.

⁵ See respectively: SOLP p.13, para. 2.4 and footnote 1 (CDG.1); VWHLPP1 para. 2.10 and fig. 2.2 (CDG.2.1); VWHLPP2 para. 2.3 and 2.10 (CDG.2.7); LTCP Appendix 1, p.154 (CDG.4).

⁶ Para. 2.10 (CDG.2.1).

*world leading science and research centres at Harwell and Culham*⁷. In a letter to the Planning Inspectorate, the Secretary of State for Energy Security and Net Zero emphasises the global significance of the Culham Science Centre and the importance of the Scheme in enabling it to grow⁸. The significance of the Culham Science Centre and the role of the Scheme in enabling its growth is further endorsed by the written and oral evidence to the inquiry of Professor Sir Ian Chapman, the CEO of the UKAEA. It is worth emphasising that the Culham Science Centre, as an internationally important centre for nuclear fusion, has a key role in promoting a lower carbon future and combating climate change.

5. The housing and employment growth planned in the development plans for the area - the SOLP, the VWHLPP1 and the VWHLPP2 - depends on the Scheme. The Scheme has been developed alongside those Local Plans. Modelling was undertaken through the various Evaluation of Transport Impacts (“ETI”) studies produced between 2014 and 2020 for all three Local Plans and assessed through the examination process for the plans. The ETIs showed all components of the Scheme to be necessary to enable the development proposed in the Local Plans to go ahead by providing a fundamental part of the mitigation strategy required⁹.
6. The Local Plans plan for very considerable housing and employment growth in the Science Vale area. Evidence provided to the SOLP examination showed that the Scheme would directly underpin at least 19,319 homes within SODC and VWHDC areas¹⁰. If one

⁷ SOLP Inspector’s Report para. 73; also para. 111 (CDG.1.8). See also the Inspector’s Report for the VWHLPP2, para. 58 (CDG.2.13).

⁸ In CDN.18 the SS for DESNZ states (emphasis added) that *“My department’s interest in this decision relates to the potential impact on the Culham Centre for Fusion Energy in Oxfordshire. This centre is run by the UK Atomic Energy Authority (UKAEA) and is central to the UK’s ambition to lead the world in the development of commercially viable fusion energy.”*, that *“A central part of the UK’s Fusion Strategy is to grow the Culham campus, taking advantage of its attractiveness as a centre for global fusion investment and firms that want to take advantage of the concentration of expertise and skills such a centre brings. As the campus grows it will become the natural home for global fusion R&D in the same way that Silicon Valley is the natural home of tech development. This supports wider economic growth across the UK given the geographical dispersal of the fusion technology supply chain in the UK.”* and that *“Any decision regarding new transport links in and around Abingdon is likely to have considerable implications for the ability of the Culham Centre for Fusion Energy to grow and capitalise on its globally unique position. I would be grateful if the potential impact on the UK’s Fusion Energy strategy, and consequently impact on potential economic growth, would be fully considered when the Planning Inspectorate undertakes its review.”*

⁹ See section 3 of Claudia Currie’s proof.

¹⁰ See Emma Baker proof of evidence for SODC, which refers to CDG.16 “South Oxfordshire Local Plan Examination Note on Matter 10 – Didcot Garden Town – Explanation of traffic modelling figures” (para. 5).

considers housing growth more broadly in the area, both homes recently constructed and expected up to and beyond 2035, the figure is 29,714¹¹. The Science Vale is expressly identified as a strategic focus for growth in all three Local Plans. The VWHLPP1 explains that *“We are planning to focus most of our development within the South East Vale Sub-Area (around 75% of the proposed strategic growth). This is because the area is home to the largest of our employment sites and where the largest number of new jobs will be created”*¹². The SOLP likewise explains that it has *“a focus on delivering housing and employment at Science Vale”*¹³. There are a number of very large individual allocations: 3,500 homes and a net increase of 7.3ha of employment land at Land adjacent to Culham Science Centre (SOLP Policy STRAT9); 1,700 homes and 5ha of additional employment land at Land at Berinsfield Garden Village (SOLP Policy STRAT10i); 2,030 homes at North-East Didcot (SOLP Policy H2); 2,587 homes at Great Western Park (SOLP Policy H2); 2,550 homes at Valley Park (with *“the capacity to deliver considerably more”* beyond 2031) and 800 at North-West Valley Park (VWHLPP1 Core Policy 15).

7. Policy provides that these large strategic allocations, comprising thousands of homes and significant amounts of employment floorspace, are required to contribute to, and are dependent upon, the Scheme¹⁴. For such housing and economic growth to be sustainable, there is a clear need for the necessary infrastructure to be in place to support it.
8. For this reason, policies in the Local Plans expressly support all four components of the Scheme and safeguard land for them¹⁵. Although the precise location of components of the Scheme may differ to some extent from the safeguarded land, generally the Scheme is in the broad locations safeguarded, and in any event policy makes clear that the policies map *“does not seek to show a precise alignment for the transport schemes,*

¹¹ Aron Wisdom proof of evidence, para. 3.9 and Figure 3, pp.8-9.

¹² Paragraph 5.90 (CDG.2.1). This focus continues within the VWHLPP2: see paras. 2.3 and 2.10 (CDG.2.7).

¹³ Paragraph 2.4 (CDG.1).

¹⁴ In the SOLP, STRAT8 Culham Science Centre, STRAT9 Land adjacent to Culham Science Center, and STRAT10i Land at Berinsfield Garden Village (CDG.1); in the VWHLPP1, Valley Park and North-West of Valley Park (CDG.2.1).

¹⁵ Core Policies 17 and 18 of the VWHLPP1 (CDG.2.1); Core Policy 18a of the VWHLPP2 (CDG.2.7); Policies TRANS1B and TRANS3 of the SOLP (CDG.1).

*which will need to be informed by detailed design work, carried out in consultation with Oxfordshire County Council and other relevant parties*¹⁶.

9. All these policies were scrutinised and found sound by the Inspectors examining the Local Plans. The Inspectors expressly endorsed (1) the need for the Scheme as mitigation for the development proposed, and (2) the robustness of the transport studies which assessed the mitigation package. They found the Scheme to be integral to both Local Plans' spatial strategies¹⁷.
10. Indeed, it is difficult to overstate the importance of the Scheme to the Local Plans. Without the Scheme, the Local Plans would fail. The planned growth could not come forward, due to the absence of the infrastructure required to support it and mitigate its impacts. That is the evidence of the South Oxfordshire and Vale of White Horse District Councils themselves, who have considered this Scheme important enough to apply for Rule 6 status at this inquiry, be represented and call witnesses. The Leader of SODC, Councillor David Rouane, has attended and explained his Council's view that the Scheme *"is a fundamental part of our Local Plan"* and that without it *"the Local Plan would fail because so many housing sites, planned and existing, need this road to make them viable settlements"*¹⁸. Both Councils have made clear that they *"strongly support"* the Scheme¹⁹. SODC put it in particularly stark terms: *"the refusal of planning permission for HIF1 would be catastrophic for the District"*²⁰. That is not language that you often hear at a planning inquiry from a local authority.
11. Objections to the Scheme on the basis that it is not needed, or that there are alternative solutions, must be recognised for what they are: objections to the Local Plans. The need for the Scheme has been established through the Local Plans and they contain policy supporting the Scheme. Such policy support has the force of statutory presumption in

¹⁶ VWHLPP1 Core Policy 18 (CDG.2.1). Core Policy 18a in the VWHLPP2 updated the safeguarded area in light of ongoing work, as explained at para. 2.128 (CDG.2.7).

¹⁷ See VWHLPP1 Inspector Report at paras. 144-145 (CDG.2.5); SOLP Inspector Report at paras. 74, 91, 93, 121, 136, 182, 200, 213-216 (CDG.1.8).

¹⁸ Statement to the inquiry by Cllr David Rouane, day 2 (21 February 2024) (INQ-35).

¹⁹ SODC opening statement para. 2 (INQ-05); VWHDC opening statement para. 3 (INQ-06).

²⁰ SODC opening statement para. 7 (INQ-05).

section 38(6) of the Planning and Compulsory Purchase Act 2004. It is simply too late, and the wrong forum, to raise such objections to the Scheme.

12. The Local Plans are up to date. The SOLP was adopted in December 2020, less than five years ago such that the legislative requirement for a review has not yet arisen²¹. The VWHLPP1 was adopted in December 2016 and, when reviewed in 2021, was found to continue to provide a suitable framework for development in the district that is in overall conformity with government policy²². The VWHLPP2 was adopted in October 2019, such that it is less than five years old.
13. The suggestion by some objectors that the Local Plans are out of date is wholly unconvincing. No objector could point to any relevant difference between the latest December 2023 version of the NPPF and the previous iterations of the NPPF against which the Local Plans were found sound. Mr Tamplin for POETS suggested that the Local Plans were inconsistent with para. 115 of the December 2023 NPPF²³, but that deals with refusal for highway schemes on the basis that there would be an unacceptable impact on highway safety, or if the residual cumulative impacts on the road network would be severe, and there is no evidence whatsoever that the Scheme would cause such impacts (indeed, the Scheme would prevent such impacts which would otherwise arise). Mr Turnbull alleged that Policy CP17 (regarding strategic highway improvements) in the VWHLPP1 was inconsistent with para. 116 of the NPPF, particularly the provision in sub-paragraph (a) for giving priority to pedestrian and cycle movements²⁴. But the Scheme plainly does make significant and high quality provision for pedestrian and cycle movements and, in any event, the Scheme is part of a wider strategy in the Local Plans and the LTCP that prioritises walking and cycling. The only other point was Mr Turnbull's observation that Policy CP17 of the VWHLPP1 refers to the Local Transport Plan 4 ("LTP4"), which has not been superseded by the LTCP²⁵. But as is clear from the LTCP, the policy support for the Scheme in LTP4 has been carried forward into LTCP: see the

²¹ Town and Country Planning (Local Planning) (England) Regulations 2012, reg. 10A.

²² Adrian Butler proof of evidence, para. 3.3.

²³ In cross-examination by Mr Humphries KC, day 2 (21 February 2024).

²⁴ Cross-examination by Mr Humphries KC, day 3 (22 February 2024)

²⁵ Cross-examination by Ms Lambert, day 3 (22 February 2024)

section on 'LTP4 Review' and Appendix 1 - Science Vale Area Strategy which supports the continued delivery of all four components of the Scheme²⁶.

14. The reliance by some objectors on the emerging Joint Local Plan (January 2024) goes nowhere: given only an 'issues' consultation has been produced, it can attract at most very limited weight, and even it did attract greater weight, it supports and safeguards all four components of the Scheme (in proposed draft Policy IN3)²⁷.

Additional key issues which the Scheme will address

15. In addition to enabling delivery of planned development, the need for and benefits of the Scheme manifest themselves in a number of further ways. As explained by Mr Wisdom²⁸, the Scheme will address five key issues, with one being the delivery of housing and employment growth as already discussed, and the other four being:
 - a. The poor existing highway network performance;
 - b. The under-provision of active travel in the area;
 - c. Improvements in public transport; and
 - d. The need for adequate network resilience and safety.
16. In respect of the first issue (**poor existing highway network performance**), Didcot and the wider Science Vale area has seen considerable housing and employment growth over the past 30 years. This has led to significant traffic growth, both within the town and related to commuting across the wider area. Junction capacity assessments using 2020 base traffic flows show that a number of junctions are operating over capacity in either or both the 2020 morning and evening peak hours. In particular:

²⁶ 'LTP4 Review' at p.24, and Appendix 1 Policies SV2.6, 2.13 and 2.16 at p.156 – 158 (CDG.4).

²⁷ January 2024 Preferred Options Consultation, pages 503 – 505 (para (1)(k) and (5)) (CDG.18). See Mr Greep's proof at para. 3.4.6 - 3.4.11 and 7.1.7(d).

²⁸ Proof para. 6.2.

- a. The Clifton Hampden signalised junction is significantly over capacity (practical reserve capacity is -241.2% and -273.1% in the AM and PM peaks respectively) and is subject to significant queuing²⁹.
 - b. The Tollgate Road / Abingdon Road junctions, including at the Culham Bridges, see very significant queues, including of up to almost 1.2km in the AM peak³⁰.
17. The extent of these highway issues has resulted in proposals for single dwellings being refused planning permission on highway grounds, with the refusals being upheld at appeal³¹. OCC has subsequently adopted a Development Release Strategy, which allows the delivery of housing, subject to mitigating measures, but that strategy is expressly predicated on the Scheme coming forward³² and, as explained by Mr Wisdom, *“if the HIF1 Scheme were not to proceed, OCC would need to remove the development release strategy and reconsider its approach to development in the area”*³³.
18. In cross-examination of Ms Currie, Mr Woolley sought to downplay the extent of the current congestion. Ms Currie agreed that there was not gridlock currently, but did not otherwise accept Mr Woolley’s suggestion. She was also at pains to point out that the Scheme is needed to alleviate the traffic impacts that would otherwise arise by 2034 with the planned growth; while there might not be gridlock today, there would be in 2034 unless the Scheme comes forward. This is demonstrated by the modelling results for 2034 without the Scheme, which shows severe congestion at many more junctions across the network, with queues of over 600 vehicles long³⁴. Indeed, the model when run at full demand in 2034 without the Scheme showed gridlock and, therefore, to get

²⁹ Paragraphs 3.5.20 – 3.5.21 and Table 3.9 (concerning junctions OFF6 and OFF7) in the Transport Assessment (CDA.07).

³⁰ Paragraphs 3.5.26 – 3.5.31, Table 3.12 and Figure 3.25 (concerning junctions OFF10 and OFF11) in the Transport Assessment (CDA.07).

³¹ See Mr Wisdom proof para. 4.14, citing the four appeal decisions.

³² See the Development Release Strategy at Mr Wisdom’s Appendix AW2.2.

³³ Evidence in chief, day 6 (28 February 2024).

³⁴ See Table 6.17 in the Transport Assessment (p.95), in particular junctions OFF3, 4, 5, 6 & 7, 9, 10, 11 and 13, showing for example queues of up to 220 vehicles at OFF3, 459 at OFF4, 539 at OFF6&6, and 654 at OFF9 (CDA.7).

the model to work at all it had to be run at 70% of demand with the results then factored up to full demand³⁵.

19. Objectors have suggested that the Scheme is only a short term solution, in purported reliance on the graphs from the Transport Assessment which allow comparison of average speed and journey times between 2024 without the Scheme and 2034 with the Scheme. They also note that some of the development sites in the Local Plans may not be fully built out by 2034, such that further growth may come forward after 2034³⁶. That misrepresents the evidence. The graphs show that with the Scheme in 2034, average journey times and speeds are broadly similar to 2024 without the Scheme. That means that, despite all the planned growth, the Scheme allows the road network to function in 2034 (in addition to delivering significant levels of high quality cycling and walking infrastructure) and thereby succeeds in its objective of allowing this planned growth to come forward. In addition, whilst average times and speeds across the network will be broadly similar in 2024 without the Scheme and 2034 with the Scheme, the detailed junction assessments show that acute current issues at particular junctions (especially around the river crossings) are significantly alleviated.
20. The graphs show that without the Scheme, by 2034 average speeds and journey times will be very significantly worse, evidencing the gridlock that Ms Currie said would occur. That is what the Scheme avoids, which is a major and long-term benefit. Nor is there any evidence before the inquiry that after 2034 the position will deteriorate.
21. On top of the clear evidence from the modelling is the powerful evidence from those who actually have to use this highway network today. The inquiry has heard extensive first hand evidence of the real world problems this network is causing to people's lives today, even before the impact of thousands of new homes is added to the network. For example:

³⁵ As explained at paragraph 5.3.11 of the Transport Assessment (CDA.7). It is also worth noting that this was after the demand reduction had been made for new developments in the future model year (i.e. demand was reduced to 80% of what would otherwise have been the total).

³⁶ See Transport Assessment section 6.11, including figures 6.29 – 6.32 (CDA.7), as relied on by e.g. Professor Goodwin proof of evidence, appendix p.8 last two paragraphs. A similar argument was put by Mr Woolley to Ms Currie in cross-examination (day 7, 29 February 2024).

- a. Mr Jonathan Alcantara, who is responsible for the Culham Bus Club which transports 500 pupils daily to six schools, explained how on a normal day the queue is up to 30 minutes at the Culham Bridges, and in the event of a road closure elsewhere the delays can grow to an hour, and when the bridges close due to flooding, the diversion through Abingdon can take more than two hours. The result is hundreds of children late for school and missing hours of education, or having to get up earlier and earlier in order to spend time sitting in traffic³⁷.
 - b. Sue Scane, Deputy Chair of Didcot First and Chair of Didcot Volunteer drivers, explained how the volunteer drivers taking people to medical appointments have to suffer delays, unreliable journey times, and very significant diversions³⁸. Ms Scane’s statement was supported by evidence to similar effect from David Pryor, the chair of Didcot First³⁹.
 - c. Councillor Sally Povolotsky explained the effect of the current situation on her local residents in the Hendreds and Harwell division for which she is the county councillor, that *“the impact on daily lives is exhausting, the alternatives [to driving] aren’t viable in terms of efficiency or cost”*⁴⁰.
 - d. Simon Peacock, Chair of Western Valley Parish Council, made comments to similar effect, commenting that *“the road infrastructure is woeful at the moment”*⁴¹.
22. There is also the strong support from UKAEA, whose presence at this inquiry as a Rule 6 party is indicative of the importance of the Scheme to them, and various other commercial parties and private individuals. Generally, it is clear from the representations to the inquiry that there is firm and widespread support for the Scheme. Not everyone agrees, but there is no evidence that the views of POETS and the NPCJC put forward to this inquiry are representative of the vast majority of those who live and work in the area.

³⁷ INQ-27.

³⁸ INQ-12

³⁹ INQ-16

⁴⁰ INQ-26

⁴¹ Oral representation on day 1 (20 February 2024).

23. In respect of the second issue (**under-provision of active travel**), there is a paucity of active travel provision across Science Vale. In Didcot and the wider Science Vale area the active travel network is fragmented and limited. For example, there is currently no direct cycle route between Didcot and Culham Science Centre, but only convoluted options including on narrow and congested roads which are not conducive to cycling even for the most experienced cyclists. Such cycle paths as exist are often narrow and uninviting, such as that along the A4130, with at most a thin buffer between cyclists and often heavy traffic thundering along the carriageway.
24. In respect of the third issue (**need for improvements in public transport**), due to the severance created by the River Thames to the north and the Great Western mainline to the south, coupled with the historic road network and frequent traffic congestion, bus journey time reliability suffers in the area and that in turn impacts attractiveness and viability. As such, there are currently only limited north-south services operating across the river to the north of Didcot. The existing transport network in and around Didcot (and with the expected levels of housing and employment growth) will not operate efficiently for any mode of transport without intervention. The representation from the Oxford Bus Company provides particularly powerful evidence of this. The statement from the Bus Company⁴² explains how the current congestion and inadequate infrastructure is a serious barrier to attractive, reliable bus services and that *“the delivery of the proposals is crucial to directly supporting the efficient and reliable operation of existing services”*. There is great irony in the position of objectors to the Scheme who promote buses as an alternative to the Scheme, but actually jeopardise even the existing services if the Scheme was to be refused as they suggest. The Company concludes that *“without the timely delivery of the proposals, the level and quality of bus service both current and in the future, would be placed in very serious peril”*⁴³.
25. In respect of the fourth issue (**the need for adequate network resilience and safety**), the existing bridges at Culham and Clifton Hampden are listed C19 structures in Flood Zone 3 and in 2021 and 2024 had to close due to flooding for almost a week,

⁴² CDN.7

⁴³ Pages 2 – 3 (CDN.7).

exacerbating already serious congestion issues and leaving some villages temporarily without a bus service at all⁴⁴. The Scheme is needed to provide resilience in this respect.

26. The Scheme will address all these issues in an integrated and effective way. It will avoid severe transport impacts which would otherwise lead to refusal of housing and employment growth (NPPF para. 115). It will alleviate congestion on the highway network and enable modal shift across Science Vale including by facilitating the enhancement of bus services and encouraging walking and cycling. It will improve accessibility across the River Thames and the Great Western Mainline, increase resilience on the network, and provide direct routes linking up the housing and employment sites, rather than forcing traffic to adopt circuitous routes and cut through villages.
27. The Scheme will in future years take traffic out of villages and settlements, including (but not limited to) Appleford, Clifton Hampden, and Sutton Courtenay as follows:
 - a. In **Sutton Courtenay**, the traffic flows with the Scheme are substantially reduced from the no Scheme position: the links through the village see reductions of between 18% and 49%. For example, at the southern end of the village, the flow in 2034 is reduced from c.14,000 per day without the Scheme to c.7,000 per day with the Scheme, i.e. taking 7,000 vehicles daily out of the village. Over the Culham Bridges, the figures are even more dramatic, at 70% in 2034 with the Scheme (from c.10,000 to c.3,000 vehicles per day), and a similar percentage reduction in 2024⁴⁵.
 - b. In **Appleford**, the daily traffic flow reduces by 64% with the Scheme in place in 2034, from c.8,500 to c.3,000 vehicles, with a similar percentage reduction in 2024 with the Scheme⁴⁶.

⁴⁴ See Aron Wisdom proof at para. 4.12 and Figures 6 and 7 (p.17-18).

⁴⁵ Ms Currie Appendix CC2.9 Table 3.1 and 3.3 – see links 30, 31, 32 and 34, and Appendix CC2.7 paras. 5.6 – 5.10. See ES Chapter 16 Fig. 16.4 for the location of the links (CDA.15.16).

⁴⁶ Ms Currie Appendix CC2.9 Table 3.1 and 3.3 – see link 26. See ES Chapter 16 Fig. 16.4 for the location of the links (CDA.15.16).

- c. In **Clifton Hampden**, the daily traffic flow reductions are between 77% and 83% with the Scheme in place in 2034 (for example from c.12,700 to c.2,500 vehicles near the A415 / Oxford Road junction), again with similar percentage reductions in 2024 with the Scheme⁴⁷.
28. As will be set out in more detail below, the Scheme’s environmental effects are positive: reducing traffic noise in settlements and the air quality and climate change impacts of congestion.
29. The Scheme offers vastly improved opportunities for active travel and public transport. The assumption underpinning a number of objections, that the Scheme is essentially a ‘road only’ scheme designed for the private car, bears no relation to what is actually proposed and what it will achieve. In particular:
- a. The road capacity provided by the Scheme will enhance bus journey time reliability and enable new bus service links, as evidenced in the representation from the Oxford Bus Company⁴⁸.
 - b. There are significant active travel benefits in the provision of approximately 20km of new and/or improved off-carriageway cycling and pedestrian infrastructure. As explained by OCC witnesses, it will be attractive and spacious, with buffers between the cycleways / footways and vehicular carriageways, convenient crossing points prioritised for non-motorised users wherever possible, and well-lit and safe.
 - c. The Scheme also enables wider connectivity to footpaths, bridleways, and other cycle networks. Indeed, the Didcot Local Cycling and Walking Infrastructure Plan (2023) (“**LCWIP**”) states that HIF1 is *“the cornerstone of a future wider active travel network that addresses the existing severe severance to walking and cycling created by road, rail and river in the Didcot and surrounding areas. It is the central ‘puzzle piece’ that unlocks a predominantly off-road walking and cycling route”*

⁴⁷ Ms Currie Appendix CC2.9 Table 3.1 and 3.3 – see links 29, 38, 39 and 40. See ES Chapter 16 Fig. 16.4 for the location of the links (CDA.15.16).

⁴⁸ CDN.7

from Oxford to Harwell Science and Innovation Campus (and further afield in both directions) via Kennington, Radley, Culham Science Centre, multiple rail stations, and Didcot.”⁴⁹

- d. The Scheme does not aim to provide unlimited highway capacity for cars and has not been modelled and designed on this basis.
- e. The Scheme is fundamental to delivering the aims of the Didcot Garden Town. By reducing the impact of existing and forecast traffic within the area using a ‘decide and provide’ methodology, the Scheme will help to make walking and cycling more attractive and to realise the network of improvements identified in the adopted Didcot LCWIP⁵⁰.

Further policy support for the need and benefits of the Scheme

- 30. The need for and benefits of the Scheme also gain weight by their recognition in other tiers of policy, beyond the Local Plans.
- 31. The LTCP will be dealt with under Issue 3 below, but OCC say that there is full compliance with that document.
- 32. The Scheme is embedded in the Didcot Garden Town Delivery Plan, which includes all four components of the Scheme⁵¹. It specifically supports the Didcot Science Bridge as a mechanism for *“Reducing traffic travelling through the centre of Didcot by re-directing as much traffic as possible around the town’s northern periphery”*⁵² and reducing severance caused by the railway line⁵³. It promotes the enhanced walking and cycling provision along the A4130 between Milton Interchange and Didcot that will be delivered under the Scheme⁵⁴. Objectors have referred to the Garden Line proposal in the Delivery Plan, which is a proposed cycle and pedestrian route between Harwell and

⁴⁹ CDG.4.1 at para. 2.5.10.

⁵⁰ CDG.4.1 at para. 2.5.10 – 2.5.11.

⁵¹ See fig. 5.32 (“Currently proposed infrastructure schemes”), p.128-129 (CDG.6).

⁵² Section 1.1.3, p.12 (CDG.6). The Didcot Garden Town Delivery Plan is a non-statutory planning document, considered to *“represent a clear statement of intent and commitment to the garden town vision”* (section 1.1.7, p.25).

⁵³ Section 5.5.1, p.101 (CDG.6).

⁵⁴ Page 113, fig. 5.19 (CDG.6).

Culham, via Didcot⁵⁵. The Scheme and that proposal are not mutually exclusive however: the Delivery Plan envisages both potentially coming forward⁵⁶. Also it should be recognised that by the Scheme incorporating segregated cycling and walking provision alongside the new carriageway, including across a new bridge over the Thames, the Scheme is to a very significant extent realising this objective of the Delivery Plan of providing a new and high quality cycling and walking route linking Didcot and Culham. It should also be noted that the Garden Line is no longer included on the list of Revised Didcot Garden Town Delivery Plan Projects 2022, submitted to the inquiry by VWHDC⁵⁷.

33. Finally, the need for and benefits of the Scheme are recognised in national policy, which is strongly and directly supportive of the Scheme.
- a. The Scheme, by being rooted in development plan and transport plan policy, is *“genuinely plan-led”* (NPPF para. 15).
 - b. In accordance with NPPF para. 11, the Scheme enables sustainable growth by *“align[ing] growth and infrastructure”*.
 - c. Of very direct relevance to the Scheme is NPPF para. 74. It encourages larger scale housing, such as seen in the large allocations in the South Oxfordshire and Vale of White Horse Local Plans, providing that *“The supply of large numbers of new homes can best be achieved through planning for larger scale development, such as new settlements or significant extensions to existing villages or towns”*. This comes with the caveat: *“provided they ... are supported by the necessary infrastructure and facilities (including a genuine choice of transport modes”*. That is precisely the function of the Scheme.
 - d. The Scheme, by unlocking economic growth and employment sites, is also directly aligned with NPPF paras. 85-86 which seek to *“create the conditions in which*

⁵⁵ Section 9.3.7, p.332-335 (CDG.6).

⁵⁶ E.g. the figure on p.337 in section 9.3.8 of the Delivery Plan (CDG.6).

⁵⁷ Mr Butler proof, Appendix 1 – see proposed project number 11 in the table.

businesses can invest, expand and adapt”, including by addressing “potential barriers to investment, such as inadequate infrastructure” (paras. 85 – 86).

Conclusion on issue 1

34. The evidence before this inquiry is that the need and benefits are entirely compelling and worthy of very substantial weight. That evidence has not been seriously challenged. POETS, the NPCJC and certain other objectors raise specific points of opposition in respect of alternatives and the modelling, which will be dealt with below, but there has been no coherent and evidenced case put to the inquiry gainsaying the need and benefits case. Certainly OCC invites the Inspector to conclude that the need and benefits, as advanced by OCC, the Districts and other supporters, are wholly made out.

Issue 2: whether the transport modelling on which the proposal is based is robust and takes account of any significant traffic impacts in the wider area

General

35. The evidence has clearly shown the modelling approach to be robust. It has been developed over a number of years and has been carried out in three stages, each building on previous work and ensuring that the best available traffic data has been used in the decision-making process.
- a. First, high level strategic modelling was undertaken using the Oxfordshire Strategic Model (“OSM”), a model which considers Oxfordshire as a whole. Ms Currie has explained that the OSM is fully compliant with DfT’s Transport Appraisal Guidance (“TAG”) and has passed the appropriate calibration and validation criteria⁵⁸.
 - b. Secondly, detailed microsimulation modelling of the entire Didcot area (including the area covered by the Scheme) was carried out using the Didcot Paramics Microsimulation Model. This model has likewise been calibrated and validated in

⁵⁸ Ms Currie proof para. 2.23 and Appendix CC2.1 OSM Model Standards 2015 Local Model Validation Summary.

accordance with TAG and other guidance, and validation data confirms it as a robust base for use in assessing developments and infrastructure proposals⁵⁹.

- c. Thirdly, detailed assessment of specific junctions was undertaken using standalone junction models, utilising industry-standard software tools and relying on the output flows from the validated Paramics model⁶⁰.

36. The modelling has in turn formed the basis for the comprehensive Transport Assessment supporting the Scheme.

37. The robustness of the modelling has been confirmed by:

- a. The expert evidence of Ms Currie to that effect⁶¹, who is a highly experienced expert in traffic modelling.
- b. The calibration and validation process set out above.
- c. Its compliance with TAG and other relevant guidance.
- d. The fact that the traffic flow information from the OSM was used as the basis for the evaluation of traffic impacts arising from the development proposed in the VWHLPP1, VWHLPP2, and SOLP. The Inspectors relied on the modelling as a sound basis to understand the traffic impacts⁶².
- e. The review of the modelling by the Transport Development Control Team of OCC. The Highway Authority scrutinised the modelling as part of the planning application process, including by taking advice from external modelling consultants, and confirmed that they were satisfied with the modelling⁶³.

⁵⁹ Ms Currie proof para. 2.45 and Appendix CC2.2 Didcot Microsimulation Base Model – Development Report, especially section 6.

⁶⁰ The Junctions 9 software package for priority junctions and roundabouts, and LinSig for signalised junctions (Ms Currie proof paras. 2.52 – 2.60).

⁶¹ See conclusions to that effect at paras. 2.4 and 4.2 in particular.

⁶² Ms Currie proof section 3.

⁶³ Ms Currie proof paras. 4.10 – 4.13, including TDC response dated 27 July 2022 enclosing at Appendix 1 the Technical Note by JCT Consultancy dated 28 January 2022 (CDE.42), and subsequent TDC response dated 1 February 2023 (CDE.71).

- f. The review by Origin transport consultants, who rejected concerns raised about the extent of the modelling, in particular in not including junction modelling for the Golden Balls roundabout or for Abingdon⁶⁴.

Impacts in the wider area

38. As to whether account has been taken of any significant impacts in the wider area, as referenced in Issue 2, the Applicant submits that proper and full regard has been had to this. Contrary to the suggestion by some objectors, there is no inadequacy in the extent of the modelling or the area over which impacts have been assessed. A full response to this issue is provided in the Applicant's Technical Note dated 14 December 2023, responding to POETS' request for a regulation 25 direction⁶⁵. There has been no detailed engagement with or rebuttal of that Technical Note by objectors; rather objectors have simply maintained their original position on the point. The Technical Note provides a complete and unanswered response to objectors' concerns⁶⁶.
39. In respect of **Abingdon**, the Scheme does not change people's route choice into or out of Abingdon; the route remains along the existing A415, as shown in the route options map in the Technical Note⁶⁷. In addition to not changing the direction of movements into or out of Abingdon, the Scheme does not change the number of movements, as shown by the outputs of the modelling⁶⁸. Any increase in movements is created by growth in housing and employment in the area, not the Scheme. The impact of that growth has been assessed as required through the Local Plans, and the impact of future development will be assessed through planning applications. Whether the assessment needed to include Abingdon was the subject of a regulation 25 request from OCC as LPA

⁶⁴ CDO.2: LPA's Technical Note concerning proposed reasons for refusal 3 and 8, and attached Origin Technical Note dated December 2023.

⁶⁵ CDO.1 at paras. 2.1 – 2.40.

⁶⁶ See also Ms Currie's evidence in agreement at her proof paras. 5.27 – 5.30.

⁶⁷ Figure 6, p.8 (CDO.1).

⁶⁸ See Ms Currie Appendix CC2.9 Table 3.3 (pdf page 93), which with the Scheme ('DS') in 2024 for Link 35 (A415 Abingdon Road, west of the Tollgate Road junction) shows an increase of only 3% (290 vehicles out of c.11,000) as compared to a no scheme ('DN') scenario. In 2024 for Link 35, the modelling output shows an increase of 52% (Table 3.1, pdf page 86), but Ms Currie explains (rebuttal proof para. 5.6.10) that this is because DN flows on this link are suppressed in 2024 due to the network being congested at the A415/Tollgate Road junction, i.e. it is not the Scheme that is creating the increase, but rather the network is so congested that traffic does not get through. For the link locations, see ES Ch. 16 Transport, Fig. 16.4 at p.17 (CDA.15.16).

on 26 April 2022, to which the Applicant responded in November 2022⁶⁹. OCC as the LPA were satisfied with that response, and the position has been re-reviewed by Origin transport consultants in their December 2023 note. Origin were content with the position and the LPA again agreed⁷⁰.

40. In respect of **the Golden Balls roundabout**, the Scheme would not change a driver's route choice to travel through this roundabout, and so it is not required to be scoped into assessments. The Scheme would enable traffic to avoid Clifton Hampden and Burcot when travelling to the roundabout, thereby changing the direction that the roundabout is approached from, but the overall flows at the roundabout would not be materially changed⁷¹. This is shown by the modelling, which indicates that with the Scheme there will be a substantial decrease in traffic flows on the A415 Abingdon Road through Clifton Hampden and Burcot villages and a broadly corresponding increase on the B4015 Oxford Road to the North where it connects to the Clifton Hampden Bypass⁷². It should be noted that an A4074 Corridor Strategy is currently underway in accordance with Policy 53 of the LTCP, and SV policies in the Science Vale Area Strategy specifically propose connectivity improvements at the Golden Balls roundabout⁷³. These proposals are separate to the Scheme, and it should be recognised that the Scheme does not purport to deal with all transport issues across the whole of the Science Vale area.
41. The position is the same in respect of **Nuneham Courtenay**. The Scheme will not materially increase traffic through Nuneham Courtenay; regardless of the direction of approach to the Golden Balls roundabout, the volume of traffic going through Nuneham

⁶⁹ The Regulation 25 request dated 26 April 2022 is at CDB.02 Appendix A. The response related to Abingdon is at CDB.02 Appendix I, and also appended to the Applicant's Technical Note (p.94 of the pdf; CDO.1).

⁷⁰ See Origin Technical Note dated December 2023 at paras. 2.11 – 2.22, and OCC as LPA Technical Note dated December 2023 at paras. 13 – 14 (CDO.2, including Origin Technical Note at Annex 1).

⁷¹ This was accepted by Mr Roger Williams when put to him in cross-examination (day 2, 21 February 2024). Also see route options map for Golden Balls at Figure 8, p.11 of the Technical Note (CDO.1).

⁷² See Ms Currie Appendix CC2.9 Table 3.3 (pdf page 93), which with the Scheme in 2024 for Link 39 (A415 Abingdon Road) shows a decrease of 58%, and for Link 41 (B4015 Oxford Road) shows an increase of 56%; and Table 3.1 (pdf page 85), which with the Scheme in 2034 for Link 39 (A415 Abingdon Road) shows a decrease of 81%, and for Link 41 (B4015 Oxford Road) shows an increase of 116%. For the link locations, see ES Ch. 16 Transport, Fig. 16.4 at p.17 (CDA.15.16). Ms Currie explains that the 2034 increase of 116% is greater than the 81% decrease, because 'without Scheme' flows on those links are suppressed in 2034 due to the network being in gridlock, i.e. it is not the Scheme that is creating the increase, but rather the network is so congested that traffic does not get through (Ms Currie rebuttal proof para. 5.6.12).

⁷³ See SV2.17, 2.18 and 2.19 in Appendix 1 of the LTCP (CDG.4).

Courtenay will not be materially different⁷⁴. The with and without HIF1 Scheme figures for Nuneham Courtenay, which were provided when requested by objectors, showed that for 2024 the difference would only be 2% in traffic flows⁷⁵.

42. In respect of **areas to the west of Milton Interchange, on the A4130 towards Rowstock, East Hendred and Wantage**, the assessment shows no material change in traffic flows as a result of the Scheme⁷⁶. Accordingly, no wider modelling or assessment to the west is required.
43. The Technical Note explains that other settlements and areas referred to by objectors were properly scoped out of the traffic assessment for the Scheme, such as Berinsfield, Chalgrove and in the area north and northwest of the A34 Milton Interchange. Growth has, however, been assessed through the Local Plans⁷⁷. Further, in terms of other environmental impacts, the Technical Note explains that the Environmental Statement considered the potential for impacts beyond the Scheme boundary, and defined study areas accordingly⁷⁸.

Induced traffic

44. Induced traffic, which has been raised by various objectors, can occur when a scheme causes people to choose to travel by car rather than by public transport and/or decide to travel when they would not otherwise have done so. Induced traffic has been the subject of study and has been taken into account in transport appraisal methodology prescribed in TAG. The traffic modelling used to develop the Scheme has followed this guidance, including undertaking the checks in respect of induced traffic that the guidance provides need to be carried out. Those checks show minimal percentage

⁷⁴ When this was put to Mr Roger Williams in cross-examination (day 2, 21 February 2024), he was unable to contradict it or provide any contrary evidence.

⁷⁵ See INQ-67. For 2034, the INQ-67 note shows a difference of 6% for with and without HIF1 Scheme flows. However, it needs to be borne in mind that the 2034 without HIF1 figures are influenced by the fact that the network is so congested that traffic does not get through (as explained in the final full paragraph of the note).

⁷⁶ As was accepted by Mr Roger Turnbull, contrary to his written evidence, when confronted with the relevant figures in cross-examination (day 3, 22 February 2024). See Ms Currie Appendix CC2.9 Table 3.1 (pdf page 85), which for Link 8 (the A4130 (W) to the west of Milton Interchange) shows a decrease of 3% with the Scheme in 2034 (-822 vehicles out of c.26,000); and Table 3.3, which shows an increase of less than 1% with the Scheme in 2024 (54 out of c.21,000 vehicles). For the link locations, see ES Ch. 16 Transport, Fig. 16.4 at p.17 (CDA.15.16).

⁷⁷ Paragraphs 2.29 – 2.31 (CDO.1).

⁷⁸ See paragraphs 2.34 – 2.40 of the Technical Note (CDO.1).

change in trip numbers, by mode of travel, with and without the Scheme, which show that induced traffic is not a concern in respect of the Scheme⁷⁹. No contrary evidence has been provided to the inquiry to contradict this evidence from Ms Currie. In particular, Professor Goodwin expressly accepted that he did not provide any evidence from the traffic modelling to suggest that it shows induced traffic⁸⁰. Mr Ng suggested that induced traffic would materialise, but by reference to very different types of projects (e.g. motorways and tunnels) which are not comparable to the present Scheme, and based on data which is in many cases very dated. As explained in more detail under Issue 8 (climate change) below, this evidence from Mr Ng in no way undermines the Scheme-specific modelling undertaken by the Applicant.

Rerouting

45. It became apparent that some objectors, when referring to induced traffic, are actually concerned with re-routed or redistributed traffic, i.e. traffic that is already on the wider network but chooses to divert onto the Scheme⁸¹. But the modelling is designed to forecast traffic on the future network (i.e. including the Scheme), taking account of the choices that drivers are likely to make. TAG expressly provides that the model must be geographically large enough to allow for the strategic re-routing impact of interventions such as the Scheme. Accounting for redistribution is fundamental to the modelling undertaken and fully taken into account⁸².
46. The principal rerouting suggestion put forward by objectors was diversion off the A34 and use of the HIF1 roads in order to join the A4074 at the Golden Balls roundabout⁸³. But the traffic modelling does not indicate that the Scheme will reassign strategic traffic in this way and, as Ms Currie explained, it is not hard to see why: the route via the HIF1 roads is approximately 20 kilometres in length with the need to navigate 13 junctions and has sections limited to 30mph and 40mph (including 20mph in Nuneham

⁷⁹ See paras. 5.2 – 5.11 and Table 6 of Ms Currie’s proof, and Ms Currie’s Appendix CC2.7 paras. 2.1 – 2.3 (p.60 pdf).

⁸⁰ In cross-examination by Mr Humphries KC, day 5 (27 February 2024).

⁸¹ See e.g. Ms Casey-Rerhaye’s oral evidence and cross-examination by Mr Humphries KC, day 5 (27 February 2024).

⁸² See Ms Currie’s proof at paras. 2.1 – 2.65.

⁸³ E.g. by Mr Roger Williams, proof para. 3.5.

Courtenay), whereas the route via the A34 is approximately 15 kilometres in length with the need to navigate two junctions and for the vast majority is on 70mph roads⁸⁴. The HIF1 Scheme is obviously not, and is not designed to be, an attractive alternative for drivers to reroute from the A34 to/from Oxford and beyond.

Brexit and Covid

47. Various objectors raise concerns as to traffic data and assumptions informing the traffic modelling being from 2016/2017, before both Brexit and Covid. This matter has properly been taken into account and does not affect the robustness of the modelling. As explained by Ms Currie⁸⁵, data from automatic traffic counters on the local highway network has been interrogated from pre-Covid (2017, 2018 and 2019) and post-Covid (2023) years, along with data from the A34 for the strategic highway network (for 2018, 2019 and 2023). The data shows that overall flows are well within acceptable percentage daily variation such that their difference can be considered insignificant. The historic flows can, therefore, be considered to have remained unchanged from the pre-COVID and the pre-Brexit flows when compared to those observed in 2023. They are not significantly different and do not impact the overall modelling assessments. The uncontradicted evidence is clear that there are no long-term effects that need to be considered.

Uncertainty

48. Objectors sought to rely on uncertainty in traffic modelling as weighing against the Scheme. The argument is without substance.
49. Professor Goodwin drew attention to the ‘scenario analysis’ required under the Uncertainty Toolkit associated with the latest version of DfT’s TAG Unit M4 Forecasting and Uncertainty, dated November 2023. He also relied on the National Road Traffic Projections 2022 (“**NRTP 22**”), and highlighted the large range of traffic growth in the forecasting period of 35 years from 8% to 54%⁸⁶. However:

⁸⁴ See Ms Currie Appendix CC2.7 para 4.21, including Figure 1 showing the two alternative routes (pdf page 65).

⁸⁵ Proof paras. 5.31 – 5.40.

⁸⁶ Professor Goodwin proof paras. 9 – 21.

- a. The NRTP 22 expressly state that they are intended for use for strategic policy development, and to provide a consistent policy baseline for transport business cases. The NRTP 22 state that, given their strategic, high-level nature:

*“the projections are not intended to be directly used to appraise individual road schemes, nor are they intended to be used to consider capacity changes on a specific road or solutions to specific local issues. The additional detail needed for this kind of policy usually requires a bespoke scheme model which uses the growth rates from the projections, the Department's Transport Analysis Guidance (TAG), and more local information”.*⁸⁷

- b. Accordingly, the NRTP 22 do not suggest that they should be used to assess this Scheme. Rather the NRTP 22 suggest that a specific scheme model should be used, using local information. That is exactly what the traffic modelling for the Scheme does, through the three tiers of OSM, Paramics and junction modelling.
- c. Further, determination of the present planning application does not involve strategic policy development or assessment of a business case, but assessment of the planning merits of the Scheme.
- d. Professor Goodwin also agreed that there is no requirement in the latest TAG guidance to re-model earlier forecasts (such as the outputs of the traffic modelling for the Scheme), whether based on the NRTP 22 or otherwise⁸⁸.

50. More generally, it is inevitable that there will be some uncertainty with projections. That is not a substantive argument against the Scheme. In light of the powerful evidence as to the urgent need for the Scheme, any uncertainty inherent in the fact that traffic modelling involves projections does nothing to undermine the case for the Scheme. Professor Goodwin referred to the potential for future modal shift and behaviour change⁸⁹, and Mr Turnbull thought that greater modal shift should be modelled⁹⁰, but Professor Goodwin himself described the 20% reduction for new development that has been built into the modelling as ambitious and close to the limits of what might be achievable. The argument that the Scheme should not be progressed because there

⁸⁷ Quoted at Ms Currie rebuttal proof para. 6.4 – 6.5.

⁸⁸ Cross-examination by Mr Humphries KC, day 5 (27 February 2024).

⁸⁹ Cross-examination by Mr Humphries KC, day 5 (27 February 2024).

⁹⁰ Cross-examination by Mr Humphries KC, day 3 (22 February 2024).

cannot be 100% certainty as to the projections, or in the hope of some unanticipated and wholly improbable further modal shift materialising is, with respect, irresponsible. It is 'playing dice' with people's future – their ability to get to work and school, to get to hospital appointments, to do all the things which they should be able to take for granted.

51. Finally, it should not be forgotten that the network (for car, bus and non-motorised users) is not fit for purpose currently, even leaving aside the impact of the substantial housing and employment growth that is coming forward. It is of course right to consider the robustness of the modelling, but the question of precisely how much worse the problems will get in the future should not obscure the fact that the deficiencies are plain to see on the ground today.

Conclusion on issue 2

52. In summary, the traffic modelling provides an entirely robust basis to assess the need for and effects of the Scheme in traffic and transport terms. It incorporates three tiers of modelling and has been developed and found to be sound over the course of a decade, in particular through the Local Plans that relied on it, and in the course of this application through review and scrutiny by OCC's Transport Development Control team. The inquiry has the largely unchallenged expert evidence from Ms Currie, which has comprehensively shown the issues raised by objectors – including the suggestion of wider impacts to the west and east, induced traffic, and uncertainty – to be without substance and to provide no proper basis to go behind the model outputs.

Issue 3: whether the proposal would make acceptable provision for sustainable travel, including walking and cycling, and accord with the Local Transport and Connectivity Plan

53. The Scheme accords fully with the LTCP, which further emphasises that the Scheme is a genuinely plan-led proposal. All four components of the Scheme benefit from specific local transport plan policy support in Local Transport Plan 4 ("Connecting Oxfordshire") for the period 2015 – 2031, adopted in October 2015 ("**LTP4**"), in particular in the

Science Vale Area Strategy in proposals SV2.6, 2.13 and 2.16⁹¹. In July 2022 OCC adopted its latest local transport plan, the LTCP. The LTCP notes the ongoing work to deliver schemes from the LTP4 Area Strategies (p.24) and in Appendix 1 it reviews those Area Strategies. In respect of the Science Vale Area Strategy, it makes clear that the four components of the Scheme are in the course of being delivered⁹². In this way the specific policy support for the Scheme is carried forward into the LTCP.

54. The LTCP has a specific policy on road schemes, Policy 36, which expressly recognises that road schemes may be required⁹³. That accords with the specific support for the Scheme in Appendix 1 to the LTCP. The policy provides that OCC will “*Only consider road capacity schemes after all other options have been explored*”. In the present case, the very thorough optioneering exercise undertaken, as discussed out under Issue 4 below, means that this criterion is satisfied: no other option achieves the Scheme objectives, as recognised by adoption of policy supporting the Scheme in LTCP Appendix 1.
55. Policy 36 requires, where appropriate, a decide and provide approach to be taken to proposals for new road schemes. In compliance with that, the traffic modelling for the Scheme adopted a decide and provide approach, notwithstanding that the modelling was undertaken before the LTCP was adopted⁹⁴. In particular, the Transport Assessment makes it clear that the Scheme does not aim to provide unlimited highway capacity or remove all congestion, but is part of a balanced transport strategy which also provides high-quality walking and cycling infrastructure, helping to engender modal shift to more sustainable modes⁹⁵. The transport model for the 2034 year assumes 80% demand of vehicular trips (of new housing and employment demand) compared to ‘normal’⁹⁶. Conversely, if a ‘predict and provide’ approach had been taken, a full 100% demand of

⁹¹ Proposal SV2, page 43 of 85, and Figure 1 (p.51) (CDG.5.1). Didcot Science Bridge was also originally identified as part of Local Transport Plan 3 in 2011 (Mr Wisdom para. 9.2).

⁹² Policies SV2.6, 2.13 and 2.16 (CDG.4).

⁹³ See p.105: “*there are examples where road schemes may be required and will deliver improvements*”; p.106: “*Ensuring that Oxfordshire’s transport network remains reliable and effective is key to supporting the local economy and everyday journeys. Some road capacity enhancements may be required to enable this.*” (CDG.4)

⁹⁴ See Ms Currie proof para. 5.12 – 5.26 for discussion of how the Scheme modelling adopts a decide and provide approach. The planning application was submitted in October 2021 and the LTCP was not adopted until July 2022.

⁹⁵ Paragraph 1.1.1 (CDA.7).

⁹⁶ Paragraph 5.3.8 – 5.3.10 (CDA.7).

vehicular trips for future growth would have been included in the model, and the Scheme designed to cater for that full amount of traffic growth. Professor Goodwin accepted that a modal shift of this level was ambitious⁹⁷, which emphasises how fully the Applicant has taken on board decide and provide principles.

56. The future year modelling (2034) utilised the housing and employment trajectories provided by the District Councils. In some cases the sites will not be fully built out by 2034, such as the land adjacent to Culham Science Centre, which is allocated in the SOLP for approximately 3,500 new homes, but has been modelled at 1,850 dwellings, being the number that SODC advised would be delivered in that time frame. This is another element of the 'decide and provide' methodology, whereby the Scheme has been assessed against a lower level of growth and therefore accounting for fewer vehicle trips than might otherwise be expected. Conversely, if a 'predict and provide' approach had been taken, the full build out of all sites would have been included in the model, and the Scheme designed to cater for that full amount of vehicle growth without accounting for any modal shift and vehicle trip reduction.
57. The Scheme's inclusion of high quality walking and cycling infrastructure, helping to engender modal shift, and the Scheme's role in enabling future bus services to operate, further show the Scheme to be adopting a decide and provide approach.
58. Origin transport consultants, in their review for the LPA, concluded that:

*"4.4 The Decide and Provide [modelling] approach has been taken into account with sustainable travel measures included as key components of the Scheme and this has been reflected in the method used for the junction impact assessment of the Scheme alongside trip reduction assumptions."*⁹⁸
59. Accordingly, there is compliance with Policy 36.
60. Policy 52 provides that OCC will develop and deliver area transport strategies. Production of these strategies, which have now been renamed Area Travel Plans, is underway, and the programme includes a Didcot Area Travel Plan. As Mr Disley explained, it is the intention for the Didcot Area Travel Plan to put the transport user

⁹⁷ Cross-examination by Mr Humphries KC, day 5 (27 February 2024).

⁹⁸ OCC as LPA Technical Note, December 2023 at Annex 1 (CDO.2).

hierarchy into practice by focusing on the improvement of walking, cycling, public and shared transport infrastructure, the latter including the Scheme, enabling more of the current network to be prioritised for non-car modes⁹⁹. In this way, the Scheme accords with Policy 52.

61. The LTCP includes 'headline targets', which include vehicle reduction for Oxfordshire¹⁰⁰. It must be borne in mind that these targets are for the LTCP as a whole, rather than targets that all of its strategies, schemes and measures are required or committed to meet. They are also targets for Oxfordshire as a whole and, as explained by Mr Disley, there is plainly significantly greater scope for reducing car use in urban environments such as Oxford city rather than the relatively rural environment in which the Scheme is located¹⁰¹. Further and in any event, the Scheme will contribute to LTCP car trip reduction and modal shift targets through the provision of dedicated infrastructure for non-car modes of travel. Accordingly, suggestions by objectors that the Scheme conflicts with these targets are unfounded.
62. The suggestion by some objectors that the Scheme is not part of an integrated transport strategy is plainly without substance when the Scheme is understood within the LTCP. The Science Vale Area Strategy in Appendix 1 of the LTCP includes a range of proposals, including but certainly not limited to the components of the Scheme. There are several cycle and walking proposals (e.g. SV2.1, 2.2, 3.5), bus proposals (e.g. SV2.3, 2.4, 2.25), and rail proposals (e.g. SV1.4, 1.5, 1.7, 1.8, 1.9).
63. Issue 3 also asks whether the proposal would make acceptable provision for sustainable travel, including walking and cycling. It has been already been explained under Issue 1 above how the Scheme offers vastly improved opportunities for active travel and public transport. Those points are not repeated, but in summary it is plain that the Scheme makes proper and highly beneficial provision for sustainable travel, in particular by enhancing bus journey time reliability and enable new bus service links, as evidenced in the representation from the Oxford Bus Company¹⁰², and providing approximately

⁹⁹ Mr Disley proof para. 2.54.

¹⁰⁰ Page 33 within the 'Vision and themes' (CDG.4).

¹⁰¹ John Disley evidence in chief, day 8 (1 March 2024).

¹⁰² CDN.7

20km of new and/or improved off-carriageway and high quality cycling and pedestrian infrastructure. The Didcot LCWIP 2023 describes the Scheme as “*the cornerstone of a future wider active travel network that addresses the existing severe severance to walking and cycling created by road, rail and river in the Didcot and surrounding areas*”¹⁰³, and the Scheme realises the objective of the Didcot Garden Town Delivery Plan of providing a new and high quality cycling and walking route linking Didcot and Culham¹⁰⁴.

64. Mr Blanchard and Mr Chan explained how in the design of the Scheme priority has been given wherever possible to pedestrian and cyclist priority. There was no serious challenge to their evidence. A specific concern raised by objectors relating to connectivity between Appleford and Sutton Courtenay actually served to illustrate how comprehensive the walking and cycling provision is in the Scheme and the step-change it offers to the current situation. In particular, the Scheme will offer off-carriageway pedestrian and cyclist provision from where it connects into the existing B4016 to the west of Appleford, then across the new Sutton Courtenay roundabout, and linking back into the B4016 to the east of Sutton Courtenay¹⁰⁵. Currently, there is no segregated provision at all in this location, not even a footway, which together with the lack of street lighting and the 60mph speed limit makes active travel highly unattractive. It is a prime example of what is described in the WSP research document commissioned for the Climate Change Committee:

*“This is especially true when it comes to the urban-rural divide within the UK, where there are significant differences in the barriers to modal shift. There are overarching concerns that seem to be consistent regardless of area, such as worries about safety, but lack of infrastructure for walking and cycling, concerns over public transport frequency and operational hours and overall lack of connectivity and first/last mile solutions are debilitating barriers in rural areas.”*¹⁰⁶

¹⁰³ CDG.4.1 at para. 2.5.10.

¹⁰⁴ See fig. 5.32 (“Currently proposed infrastructure schemes”), p.128 (CDG.6).

¹⁰⁵ See General Arrangement Plans Sheets 11 and 12 (CDD.11 and CDD.12).

¹⁰⁶ *Understanding the Requirements and Barriers for Modal Shift*, para. 3.7.1, pdf page 36 (INQ-37).

Conclusion on issue 3

65. Accordingly, the Scheme fully complies with and gains strong policy support from the LTCP; it is a key part of the LTCP integrated transport strategy for the Science Vale, complies with specific policies including on taking a decide and provide approach, makes extensive and high quality provision for active travel (i.e. walking and cycling), and enables improved public transport through enhancement to bus journey reliability and potential additional services.

Issue 4: consideration of alternatives

Approach to alternatives

66. It is important to approach the issue of consideration of alternatives on the correct basis. This inquiry is concerned with the Scheme for which planning permission is being sought, not some other, alternative, project. The question of whether to grant planning permission must be determined by reference to the planning merits of the Scheme. Case law indicates that the consideration of alternative sites or schemes will only be relevant to a planning application in exceptional circumstances.¹⁰⁷ In the present case, OCC say that no such circumstances exist. The Scheme has express and strong support in the development plans for the area and in the LTCP; the broad route is safeguarded in the development plans; there is compliance with the development plan overall and any areas of non-compliance are limited; the benefits are wide-ranging and compelling; any harms are limited in number and extent, and are inevitable for a project of this sort. Taken together, that weighs strongly against any suggestion that exceptional circumstances exist making alternatives relevant.

Alternatives to the Scheme

67. The Scheme is the product of a detailed and multi-stage optioneering process which took place between 2014 and 2021. The process has been extensive and iterative, as summarised in Mr Wisdom's proof (sections 8, 9, 10 and 13). Particular milestones were

¹⁰⁷ See *R (Save Stonehenge World Heritage Site Ltd) v Secretary of State for Transport* [2022] PTSR 74 at [268-272] and *Bramley Solar Farm Residents Group v Secretary of State for Levelling Up, Housing and Communities* [2023] EWHC 2842 at [162-163].

the production of the Options Assessment Reports (“OAR”) Part 1 and Part 2 in 2018 and 2019 respectively and then a further OAR in 2021 which reflected the updated evidence base and replaced, but utilised, the 2018 and 2019 OARs. The 2021 OAR followed a phased process, which included the following:

- a. Initial sift of 16 options (plus a ‘do minimum’ option comprising no interventions, making 17 in total)¹⁰⁸. These included numerous public transport and active travel options, as well as highway and multi-modal options. The public transport options included an enhanced bus network, improved rail services, bus rapid transit links, rail rapid transit links, and demand responsive travel. All options were assessed against the Scheme objectives, including the eight final Scheme objectives adopted in the OAR 2021¹⁰⁹, which address four themes of: supporting housing development; supporting economic growth; future-proofing (i.e. network resilience); and sustainable travel.
- b. The initial sift identified five options that would contribute to achieving the level of growth aspired to in Science Vale. They included the four HIF1 Scheme components, plus an option comprising improved rail stations at Didcot and Culham, and a new station at Grove. The other options, including the other public transport and active travel options, performed less well against the objectives and so were not taken forward.
- c. The five shortlisted options were then assessed based on a methodology comprising a five business case approach and a framework based on DfT’s Early Assessment and Sifting Tool (“EAST”) guidance. The new / improved rail stations option was discounted, based on concerns regarding significant cost, deliverability, and potential to support planned growth across Didcot and Science Vale¹¹⁰.
- d. The remaining four options, comprising the Scheme components, were then subject to further optioneering including routing and design. Various alignments

¹⁰⁸ OAR 2021, sections 5 and 6 (CDA.19.1, Appendix A).

¹⁰⁹ OAR 2021, Table 4-6, p.77 (CDA.19.1 Appendix A); summarized in Mr Wisdom’s proof section 7.

¹¹⁰ OAR 2021, section 7.7 (CDA.19.1 Appendix A)

were looked for all the elements (other than the A4130 widening). The Didcot to Culham river crossing was subject to particularly extensive optioneering, with six separate alignments considered in detail, and the various benefits and drawbacks of each taken into account¹¹¹.

68. The optioneering process was subject to significant consultation and engagement with local stakeholders¹¹². This included consultation through the consultation on the VWHLPP1 and LPP2 and the SOLP, the LTP4, and Scheme-specific consultations in 2018 and 2020. Changes were made to reflect concerns, including moving the Didcot to Culham river crossing west to take account of environmental concerns of Appleford Parish Council, inclusion of low noise road surfacing and noise barriers at sensitive locations, and amending the alignment of the Clifton Hampden bypass to take account of environmental concerns of Clifton Hampden Parish Council. The planning application itself has also been consulted upon, including through further consultation on response to EIA regulation 25 requests.
69. Objectors at the inquiry have raised purported alternatives to the Scheme, and suggested that the Scheme is not needed as a result. As set out above, even if some feasible alternative existed, that would not be a reason to refuse planning permission in the absence of exceptional circumstances, which do not exist. But in any event there are no feasible, realistic alternatives. In particular:
- a. **Improved and more frequent bus services** are said to be an alternative to the Scheme. But the evidence shows that simply not to be the case. Buses cannot operate effectively in significant congestion – they become unreliable, unattractive and unviable, as compellingly explained in evidence to the inquiry from the two organisations who actually operate buses in the area: the Oxford Bus Company¹¹³ and the Culham Bus Club (via Mr Alcantara’s evidence). Options comprising improved bus transport, including bus rapid transit, as standalone options were found not to meet the objectives. Public transport options are also

¹¹¹ OAR 2021, section 8.4, especially fig. 8-3 (CDA.19.1 Appendix A)

¹¹² As set out in detail in Mr Wisdom’s proof, section 9.

¹¹³ CDN.7.

inherently more challenging in a dispersed, rural area such as Science Vale, as compared with urban environments.

- b. As to **improved walking and cycling provision**, the Scheme does include significantly enhance active travel provision, but this is not an alternative in itself, as recognised by this option not scoring well as a standalone option¹¹⁴.
 - c. **Improved and more frequent rail services** are also relied upon heavily by objectors. But rail options would not enable the planned growth across the Science Vale, given rail options are focused around existing lines. Further, any service improvements would have to be developed in liaison with Network Rail, such that they are out of the control of the Applicant to deliver. They would also potentially require four-tracking of the line between Oxford and Didcot¹¹⁵, which would have significant environmental impacts, and generally rail options are likely to be very expensive. The optioneering did not find rail options to be preferred, when assessed against the objectives¹¹⁶. Rail is an important part of the LTCP strategy, including with proposals for improving Culham rail station linked to the STRAT8 and STRAT9 allocations¹¹⁷, but it is not an alternative to the Scheme.
 - d. Suggestions that **increased working from home** might be an alternative are entirely without evidential foundation, and contradicted by Ms Currie's evidence set out above as to the latest traffic data, including post-Covid, not showing a reduction in traffic.
70. Further, even if some feasible alternative could be identified (which it cannot), it would be unfunded and therefore not a deliverable alternative. Suggestions by objectors that the HIF1 Scheme funding could be reallocated do not appreciate that government funding for the Scheme has been awarded for the Scheme in particular, after submission

¹¹⁴ OAR 2021, para. 6.1.30 – 6.1.31 (Option 11) (CDA.19.1 Appendix A).

¹¹⁵ As explained by Mr Wisdom in cross-examination by Mr Woolley (day 6, 28 February 2024), the Didcot – Oxford line is over capacity with freight and intercity traffic. Four-tracking, which would improve line capacity, is currently proposed by Network Rail down to Radley from Oxford, but not to Didcot.

¹¹⁶ OAR 2021, paras. 6.1.22 – 6.1.25 (Options 7 and 8), and paras. 6.1.34 – 6.1.35 (Option 13) (CDA.19.1 Appendix A).

¹¹⁷ See Aron Wisdom proof para. 12.39 – 12.42, and LTCP Appendix 1, SV1.9. See also more generally on rail, LTCP policy 21, and Appendix 1 SV1.4, SV1.5, SV1.7, SV1.8 (CDG.4)

of a business case for the Scheme to Homes England, and the announcement by Government in March 2019 that the bid had been successful in securing funding from the Housing Infrastructure Fund of £218m towards delivery of the Scheme¹¹⁸.

71. The alternatives put forward by objectors are entirely inchoate. They are high level ideas only, which have not been consulted upon or analysed, and which are unfunded. The Applicant's optioneering has considered them all in some form and rejected them as not meeting appropriate objectives. There is a pressing need for the Scheme now to address and accommodate hugely important housing and employment growth; it would be quite wrong to reject the Scheme on the basis that some unspecified alternative might come forward at some unspecified future point in time (and when all the evidence is that it will not).

Alternatives at Appleford

72. Objectors have suggested that the Scheme alignment and design around the Appleford Sidings is unsatisfactory and that preferable alternatives exist. The Applicant submits that what is proposed is sensitively designed and does not give rise to any unacceptable adverse impacts, for example in respect of noise, air quality, or landscape and visual impacts, as will be set out below in respect of later issues. The Applicant also says that the alternatives proposed are not feasible.
73. The alignment of the new road between Didcot and the river crossing has been the subject of significant consideration and optioneering, as set out by Mr Wisdom¹¹⁹. This included significant engagement with Appleford Parish Council and other stakeholders in the area, notably RWE the operators of the power station, FCC the operators of the landfill site, and Hanson (now Heidelberg) the operators of the aggregates site. An alignment significantly west of that proposed¹²⁰ would not be feasible because of impacts on the operation of the power station and the aggregates site, and the need to cut through deep active landfill. An alignment closer to that proposed, but still to the west, would also present major challenges: it would cut across the south west corner

¹¹⁸ Tim Mann proof paras. 5.12 – 5.15.

¹¹⁹ Proof paras. 8.80 – 8.105.

¹²⁰ See figures 19, 20, 21, and 22 in Mr Wisdom's proof (pp.68-73).

(or the middle) of the rectangular FCC lake, which is used for drainage by FCC; it would involve excavating landfill, due to the new access track to the west of the pond crossing landfill; it would require a longer bridge as the sidings are wider on this alignment; and it would cross the high point of the land, c.2m higher than the current alignment so potentially increasing visual impacts¹²¹. It would also be significantly more expensive than the proposed alignment¹²².

74. Objectors have suggested that a level crossing over the sidings rather than a bridge would be a preferable alternative but, as Mr Chan and Mr Wisdom explained, the freight trains are shunted back and forth along the rail sidings throughout the day as wagons are loaded/unloaded. Therefore trains would be sitting on the sidings for periods of the day, as and when required by the operations of the private companies. This would prevent the new road from serving its purpose, as it would be severed by stationary trains. Additionally, even when trains were not stationary over the crossing, driver delay as a result of a level crossing would make the new road less attractive. This could result in drivers continuing to route via the existing river crossings and through villages, including Appleford. Furthermore, any new level crossing, especially with the expected usage on the new road, would create safety issues¹²³.
75. Mr Chan gave expert evidence identifying these design constraints, he was not challenged on them in cross-examination, and there has been no contrary technical evidence from any objector. There is no basis to go behind that evidence.

Conclusion on issue 4

76. In conclusion, the Scheme has been the subject of a very extensive and robust optioneering process, which has shown that there are no feasible and realistic alternatives to the Scheme. That includes all of those advanced by objectors, such as public transport (bus and rail) and active travel options. The existence of alternatives is not generally a basis to object to the grant of planning permission, but in any event the work done has shown that there are none here. Optioneering at a more detailed level,

¹²¹ See figures 23, 24, 26 and 27 in Mr Wisdom's proof, p. 73-76.

¹²² For a tabulated list of the considerations, see Table 14 in Mr Wisdom's proof on p.75.

¹²³ As emphasised by Mr Chan in evidence in chief.

such as the alignment around Appleford, has likewise shown that what is proposed achieves the Scheme objectives and has been carefully designed to minimise impacts.

Issue 4A: adequacy of the environmental statement

77. The Applicant deals with this issue here as it is connected to the objectors' case in respect of traffic modelling (issue 2) and alternatives (issue 4).

78. POETS and certain other objectors have raised two principal issues in respect of the adequacy of the environmental statement. First, it is suggested that the scope of assessment is inadequate, in particular in respect of geographic areas beyond the Scheme boundary. Secondly, it is said that there has been a failure to assess reasonable alternatives, particularly in respect of non-road alternatives. Both allegations are entirely without merit. The Applicant has provided a full response on these matters in its Technical Note dated 14 December 2023¹²⁴. Mr Maddox's proof of evidence and rebuttal proof of evidence also provides further evidence in support on this issue¹²⁵. Objectors have provided no substantive response to the Technical Note or Mr Maddox's evidence, simply maintaining the allegation that the ES is deficient without engaging with the Applicant's reasoned explanation as to why that is not the case. Accordingly, the Applicant's response to these allegations remains essentially as set out in the Technical Note and Mr Maddox's evidence.

79. In summary on the **first issue**, the geographic scope of assessment was defined based on likely significant effects. The areas referred to by objectors were properly considered to be outside those where significant effects were likely: as discussed above under Issue 2 in respect of traffic modelling, the Scheme will not materially increase traffic flows in Abingdon, or at the Golden Balls roundabout, or to the north at Nuneham Courtenay, or to the west beyond the Milton Interchange. The objectors have produced no contrary evidence that traffic flows in these locations will be changed, such that their point is pure assertion. The bespoke methodologies in respect of specific environmental disciplines were all based on the potential for significant environmental effects and the

¹²⁴ CDO.1.

¹²⁵ Section 3 of Mr Maddox's proof of evidence and section 3 of Mr Maddox's rebuttal proof of evidence.

assessments were tailored accordingly – including in respect of the issues particularly raised by objectors, such as transport, air quality, and noise and vibration¹²⁶. Accordingly, in so far as the ES does not present detailed assessments of the Scheme’s effects upon settlements located further west and east of the Scheme, that is for the entirely proper reason that these areas have been considered as part of the EIA process early on, and it has been shown that significant environmental effects would be avoided in these locations.

80. The methodology and study area as set out in paragraph 1.3.1 of the Transport Assessment and Section 16.3 of the ES Chapter 16: Transport were discussed and agreed with the Local Highway Authority (Oxfordshire County Council), and National Highways (with responsibility for the A34 through Oxfordshire) during pre-application scoping. Where the LPA considered that further information was required, it was requested and supplied via the two regulation 25 requests¹²⁷.
81. On the **second issue**, the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires the Environmental Statement to include “*a description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment*”¹²⁸. The ES plainly complies with that obligation, in particular through Chapter 3 – Assessment of Alternatives¹²⁹.
82. As set out in the Applicant’s Technical Note and Mr Maddox’s proof¹³⁰, it is incorrect for POETS to suggest that this assessment of alternatives does not go beyond alternative routes. A wide range of alternatives have been considered, across various assessments spanning a decade, including different transport modes, public transport, active travel and different highways schemes. Overall, 13 different reports were reviewed and

¹²⁶ Mr Maddox proof paras. 3.2.5 – 3.2.9.

¹²⁷ Mr Maddox proof paras. 2.2.8 – 2.2.10.

¹²⁸ Regulation 18(3). See also Schedule 4, para. 2: “*2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.*”

¹²⁹ See Chapter 3 – Assessment of Alternatives (CDA.15.3).

¹³⁰ Technical Note section 3 (CDO.1); Mr Maddox proof paras. 3.2.10 – 3.2.22 and rebuttal paras. 2.11 – 2.14.

summarised in ES Chapter 3: Assessment of Alternatives. Those reports included extensive consideration of options beyond alternative routes, for example public transport-based options, and options based on cycling and pedestrian facilities, notably in the OAR Part 1 (2018), the OAR Part 2 (2019), and the OAR 2021, as discussed above in respect of Issue 4.

83. POETS at paragraph 23 of their letter rely on *Holohan and Others v An Bord Pleanála* [2018] PTSR 1054 (Case C- 461/17)¹³¹, but fail to recognise that the Court of Justice of the European Union in that case stated that: “... it must be held that [the EIA Directive] does not require the main alternatives studied to be subject to an impact assessment equivalent to that of the approved project ...”¹³². Accordingly, the alternatives do not require the same level of assessment as the chosen proposal. In the present case, reasonable alternatives were subject to assessments proportional to their stage of optioneering and design.
84. The LPA agreed that the ES properly considered reasonable alternatives, as summarised in the report to the Planning and Regulation Committee held on 17th and 18th July 2023:

*“The ES outlines the main alternatives that were studied by the applicant explains how they evolved over time as well as the reasons for selecting the proposed development as the preferred option, taking account of environmental effects. The alternatives outlined in the ES include other major road schemes, bus and rail improvements, and new technologies including autonomous vehicles. It also considered lower cost options such as traffic management measures, junction re-modelling, and investment in walking and cycling infrastructure. The conclusion was that, whilst some of the options would have lesser environmental effects, only a major road scheme would address the transport issues and requirements of the area.”*¹³³

Conclusion on issue 4A

85. Accordingly, the ES is entirely sufficient and legally compliant in scope and content, including in respect of the two issues of alternatives and geographic extent raised by

¹³¹ See para. 23 of POETS’ letter dated 4 November 2023, at Mr Maddox appendix AM2.1, pdf p.14.

¹³² Paragraph 66.

¹³³ Paragraph 91, p.36 (CDF.1).

objectors. Contrary to the suggestion by POETS¹³⁴, there is no need for the Inspector or Secretary of State to issue a further request under regulation 25 of the EIA Regulations.

Issue 5: the effect of the proposal on the character and appearance of the surrounding landscape, including any loss of trees and/or hedges

86. The effect of the proposal in landscape and visual terms has been the subject of a comprehensive landscape and visual impact assessment (“LVIA”) in ES Chapter 8¹³⁵. Methodology and scope, including study area, viewpoints and visualisations were agreed with the landscape officers at OCC as LPA and SODC and VWHDC¹³⁶.
87. Overall, the assessment identifies that there will be some significant landscape and visual effects, but it is notable that these are relatively limited in extent and scale. Such effects are likely to be inevitable in respect of a major infrastructure scheme such as that proposed. That is not to diminish the effects, but rather it is important to keep that in mind when weighing the effects against the significant benefits of the Scheme in the planning balance.
88. The Scheme crosses no designated landscapes of any type. The North Wessex Downs AONB is some way to the east of the Scheme and there are no adverse landscape effects at all on the AONB¹³⁷, and in terms of the visual assessment on views from the AONB, the impacts are assessed to be negligible¹³⁸.
89. Further, and contrary to the suggestion by objectors, only a relatively limited amount of the Scheme could properly be described as being located in open countryside. Much of the southern half of the Scheme is located in a landscape heavily influenced and fragmented by existing road and rail infrastructure, industrial, commercial and minerals uses, and existing or former landfill sites. North of the Thames a significant length of the Scheme follows the existing A415. That does not apply to the bridge over the Thames

¹³⁴ Recorded in the Pre-Inquiry Meeting Note at para. 22 (CDR.1) and repeated orally by Mr Woolley at the inquiry (e.g. day 12, 16 April 2024).

¹³⁵ Original version dated September 2021 (CDA.15.8); revised version dated October 2022 (CDB.1, Annex 4).

¹³⁶ Jane Ash proof para. 2.2 – 2.3.

¹³⁷ ES Appendix 8.5, p.7-8 (CDA.17.17). For the location of the AONB, see ES Fig. 8.8 Designations (CDA.16.13).

¹³⁸ ES Appendix 8.6, p.22-23 (CDA.17.18). The effects (as opposed to impacts) are assessed as slight adverse, which is a combination of the high or very high sensitivity and the negligible impact.

and the Clifton Hampden bypass, but the localised nature of the impacts to which they give rise need to be recognised.

90. In terms of landscape effects, significant (i.e. moderate adverse and large adverse) effects during construction and at operation year 1 arise at the site level and the local landscape character area (“**LLCA**”) level, in particular the Thames Floodplain LLCA (i.e. around the Thames river crossing) and the Clifton Hampden Farmland LLCA. But by operation year 15, the landscape residual effects are only significant at site level, and only moderate adverse as opposed to large adverse¹³⁹.
91. In terms of visual effects, the effects again diminish by operation year 15, with residual significant effects occurring at Appleford (viewpoint 10), on the Thames Path trail (viewpoints 18 – 21), at the entrance to the Culham Science Centre (viewpoint 27), and around Clifton Hampden (viewpoints 31, 34, 36, 36a, and 37). Of those residual effects, only at two viewpoints (19 and 20 close to the bridge on the Thames Path trail) is the effect large adverse, as opposed to moderate adverse¹⁴⁰.
92. In respect of the A4130 widening and Didcot Science Bridge elements of the Scheme, all the way up to Appleford, there are no significant adverse visual effects at all.
93. Any impacts of the raised section at the Appleford Sidings Bridge should not be overstated. The land to the south and west is used for landfill and aggregates operations, and its sensitivity is accordingly reduced. To the east are properties in Appleford along Main Road, but there is significant screening between those properties and the Appleford Sidings Bridge in the form of the existing mature tree belts on the west side of railway. The vast majority of these tree belts are to be retained (or are outside of the red line altogether)¹⁴¹. They are dense and tall, with the heights reaching up to 17m. That is taller than the Appleford Sidings Bridge, which will be about 12m to

¹³⁹ ES Chapter 8, Table 8.13 (p.68) (CDB.1, Annex 4).

¹⁴⁰ ES Chapter 8, Table 8.14 (p.72-73) (CDB.1, Annex 4).

¹⁴¹ The existing tree belts / vegetation and what is proposed in terms of further screening around the Appleford Sidings Bridge is shown in a number of places. See in particular the Arboricultural Impact Assessment Report, October 2022 (CDB.2, Appendix W): pdf p.62 and 65 Tree Constraints Plans Sheets 22 and 25; and pdf p.175 and 178 Tree Protection Plans Sheets 22 and 25. See also the two plans INQ-49.1 and INQ-49.2 showing the heights and dimensions of the Appleford Sidings Bridge, its distances from properties, and estimated tree heights. Finally, see the revised landscape masterplans, sheets 9 and 10 (revised versions dated 26 June 2023) (CDD.142).

the top of the noise barrier (on the eastern side of the bridge), with the tallest vehicles 2m or so above that. The height and density of the tree belts varies, but it evidently will provide substantial screening. Mr Hancock's images¹⁴² inappropriately remove all of the existing planting, and show none of what is proposed, such that they are plainly an inappropriate basis for understanding the landscape and visual impacts of the Scheme, as agreed by Mr James¹⁴³. Mr James queried in oral evidence whether tree retention was viable close to the road alignment¹⁴⁴, but the tree protection plans show that a buffer is left between the existing trees and the road to allow for construction, and that notwithstanding this the significant majority of the tree belt remains. Planting is proposed around the road once constructed and there is no reason to think that this additional planting will not establish as Ms Ash explained¹⁴⁵.

94. The HIF1 road alignment also soon diverges away from the Appleford properties when travelling north, and the photomontage from the Appleford recreation ground shows how the Scheme will not be visible at all from this location in either winter or summer views¹⁴⁶.
95. Bridge Farm Quarry has been highlighted by Mr James, but currently there is no public access to the area. The visualisations for viewpoint 16, where there is public access, show how the viaduct will be seen in the context of a landscape heavily subject to human influence around the former quarrying works, and the LVIA reasonably assesses the effect as reducing from moderate adverse at operational year 1 to slight adverse at year 15¹⁴⁷. Ms Ash recognises that if public access for recreational use is provided to the gravel lakes area in due course, there may be a significant residual effect, but the limited scope of this potential effect needs to be recognised. The currently approved restoration plan dated February 2024 shows only limited public access in the form of a small car park, a relatively short length of footpath and a bird hide, all located immediately adjacent to the alignment of the B4016. The HIF1 Scheme's enhanced

¹⁴² INQ-43

¹⁴³ Cross-examination by Mr Flanagan (day 10, 27 March 2024).

¹⁴⁴ Cross-examination by Mr Flanagan (day 10, 27 March 2024).

¹⁴⁵ Ms Ash stated that "*In my opinion it is perfectly possible to ensure their successful establishment through the measures that will be set out in the LEMP*" (evidence in chief, day 14, 18 April 2024).

¹⁴⁶ Viewpoint 14, ES Figure 8.76 (CDA.16).

¹⁴⁷ Viewpoint 16, ES Figure 8.79 (CDA.16). For assessment, see ES Appendix 8.6 (pdf p.12-13) (CDA.17.18).

walking and cycling provision in the vicinity of these proposed facilities (i.e. the cycling and walking provision between Appleford and Sutton Courtenay) would potentially help to facilitate any such public access¹⁴⁸.

96. There are significant residual effects along the Thames path (viewpoints 18, 19, 20, 21). It is notable, however, how effective the planting is in screening and softening the new bridge in the visualisations, such that only when close to the bridge does the effect reach large adverse at year 15 (viewpoints 19 and 20); otherwise it does not exceed moderate adverse (viewpoints 18 and 21); and at viewpoints 17 and 22 on the Thames path the bridge cannot be seen.¹⁴⁹
97. Around the Clifton Hampden bypass there will be some significant residual effects, but at moderate adverse level, and again the screening and softening from the planting is effective (viewpoints 31, 34, 36, 36a and 47 at operational year 15).
98. Mr James agreed that the methodology of the LVIA was appropriate and that the LVIA was comprehensive¹⁵⁰. He did not contest the assessments at year 1, but only the year 15 assessments¹⁵¹. Nor did he identify any significant effects which were not identified as significant in the LVIA¹⁵². In respect of the year 15 assessments, he took issue with what he said was the universal downgrading of the level effects between years 1 and 15 (e.g. from large adverse to moderate adverse, or moderate adverse to slight adverse etc.). But Jane Ash explained that this was not in fact a universal approach; the assessment judged that some effects would not reduce sufficiently between years 1 and 15 to drop down a level¹⁵³. Further and in any event, the LVIA judgment that after 15 years of mitigation planting maturing the level of effect would generally reduce is plainly a reasonable one, particularly given the extensive mitigation planting proposed.

¹⁴⁸ See Applicant's Technical Note dated 27 March 2024 (INQ-61) which responds to Alan James' supplementary proof of evidence, at paras. 6, and 8-12 in particular which deal with landscape and visual effects in this area, and public access.

¹⁴⁹ It should also be noted that the Scheme provides a new route down to the Thames Path, thereby improving accessibility to the Thames Path, which is a benefit: see new 'proposed footpath to Thames Path' marked on General Arrangement plan sheet 13 (CDD.13).

¹⁵⁰ Alan James landscape rebuttal para 12.

¹⁵¹ Alan James landscape rebuttal para 3.

¹⁵² Agreed by Mr James in cross-examination by Mr Flanagan (day 10, 27 March 2024).

¹⁵³ Jane Ash evidence in chief (day 14, 18 April 2024).

99. Mr James’s point about WebTAG went nowhere. The WebTAG assessment on which he relied was a 2018 assessment, expressly badged as preliminary, emphasised that it was undertaken at an early stage, and was brief and high level¹⁵⁴. It plainly was no substitute for the comprehensive assessment in the LVIA. Mr James relied on the definition of ‘moderate adverse’ in TAG guidance, but was unable to articulate any material difference between that category of effect in TAG guidance and the LVIA definition of that phrase. In any event, even if there had been a difference, there is no need for a TAG assessment when the LVIA provides a full assessment, the use of an LVIA is in accordance with DMRB, and the methodology of the LVIA was agreed with both OCC as LPA and the District Council LPAs¹⁵⁵.
100. In respect of the related issue of impact on tree cover, the overall position is that, depending on growth rates, at most a limited amount of net loss is expected, and potentially there could be net gain. In particular, canopy cover lost is anticipated to be around c.121,00sqm; new planting is anticipated to amount to between c.96,000sqm and c.169,000sqm depending on growth rates after 10 years¹⁵⁶. The average position would therefore be net gain, notwithstanding the introduction of a major infrastructure scheme. As noted in the LPA’s officer report, although the County Council’s Tree Policy for Oxfordshire seeks an increase of 30% in canopy cover, that is a non-statutory policy and there is no evidence that any additional canopy cover is achievable within the constraints of the land available or necessary in this case¹⁵⁷.
101. Appropriate conditions are agreed to ensure mitigation planting is properly planned and maintained over the long-term, and trees protected¹⁵⁸. The Applicant is undertaking to provide a £50,000 Landscaping Enhancements Fund for the local community to use more widely, but the Applicant makes clear that it considers that the Inspector and

¹⁵⁴ ES Appendix 3.1: Extract from WebTAG Preliminary Environmental Impact Appraisal Report 2018 (CDA.17.3). See section 6 on landscape at pdf p.12-20, and the final statement at pdf p.64.

¹⁵⁵ See Jane Ash proof paras. 2.1 – 2.4 and 4.2 - 4.3 (which includes explanation of the LVIA being in accordance with DMRB).

¹⁵⁶ Appendix H Arboricultural Impact Assessment Addendum, April 2023, para. 4.1.5 (CDC.2)

¹⁵⁷ The County Council’s Tree Policy is an online only resource. See para. 190 of the officer report for the July 2023 committee meeting for a summary of the policy, and para. 202 for the LPA’s conclusions that the landscaping has been maximized and cannot be increased further (CDF.1).

¹⁵⁸ Conditions 3 (CEMP), 11 (LEMP), 22 (landscaping), 23 (tree survey), 24 (arboriculture method statement), 32 (compensatory tree planting scheme) (CDQ.1).

Secretary of State should not place any weight on this matter in determining the application.

102. In terms of hedgerows, the Scheme would result in the loss of 5.67km of hedgerows and the creation of 3.84km of hedgerow. However, the vast majority of the hedgerows to be created would be native species rich with trees of high distinctiveness and moderate condition, such that it would have a greater ecological value than what is lost. This results in the assessment finding that there is overall net gain in hedgerows in biodiversity terms, with a net gain of 40.90% hedgerow units¹⁵⁹. The construction activity results in the partial loss an important hedgerow (H3) in the Clifton Hampden bypass section of the Scheme, but due to its location and orientation its partial loss is unavoidable and it is compensated for, as set out above¹⁶⁰. As a result, there is compliance with SOLP ENV2 para. 3.

Conclusions on issue 5

103. Overall, there is some conflict with the development plan policies which provide for the protection of the environment, in particular: ENV1 of the SOLP; and CP44 of the VWHLPP1. As concluded by Mr Greep¹⁶¹, however, the scale of that conflict is relatively modest, and as will be set out below, (i) it plainly does not preclude compliance with the development plan overall, and (ii) the adverse landscape and visual effects are significantly outweighed by the benefits of the Scheme.

Issue 6: whether the proposal would be acceptable in terms of impacts on noise

104. The evidence shows that the Scheme would not only be acceptable in terms of noise impacts, but that it would be positively and significantly beneficial, rerouting traffic away from villages and improving the noise environment for residents, particularly when looking ahead to the significant increase in movements which will arise from the

¹⁵⁹ See Tables 5, 8, 13 and 15, and section 4 (conclusion) of the revised Biodiversity Net Gain Assessment (April 2023) (CDC.2, Appendix I). See also para. 195 of the officer report for the 17-18 July 2023 committee meeting (CDF.1).

¹⁶⁰ See paras. 9.12.9 – 9.12.10 of the ES Ch.9 – Biodiversity (revised October 2022) (CDB.1). For the location of hedgerow H3, see Figure 2 (Hedgerow Survey Results), Sheet 1 of 4 of ES Appendix 9.2 – Survey Report for Hedgerows and Arable Plants (CDA.17.21).

¹⁶¹ Proof paras 3.2.3 – 3.3.24.

extensive planned growth in the area. It is important not to lose sight of that overall picture when considering the detail of the impacts.

105. Scheme effects in respect of noise and vibration have been fully assessed within the ES, in accordance with relevant DMRB guidance¹⁶². The study area for construction noise focuses on 21 potentially sensitive receptors including those closest to the Scheme construction works, and for operational noise includes an area within 600m of the Scheme and existing routes bypassed by the Scheme, plus 600m either side of the two identified affected routes¹⁶³.
106. In terms of **construction impacts**, there are some significant adverse daytime construction noise effects identified at the closest receptors to the construction works on the existing A4130, the existing minor access road between the A4130 on the northern edge of Didcot and the southern edge of Appleford, close to the Culham Science Centre, and the north-east edge of Clifton Hampden. Significant evening and night-time construction noise effects relate to tie-in works and bridge works at the new Didcot Science Bridge and Appleford rail sidings bridge. However, the duration of the evening and night-time tie-in works and works at the two new bridges over railways is limited. Although some significant adverse effects will remain, the effects will be mitigated by the Construction Environmental Management Plan (“**CEMP**”), which will incorporate a specific Noise and Vibration Management Plan (“**NVMP**”)¹⁶⁴. The NVMP will include relevant noise criteria, proposed surveys, a range of Best Practicable Means to be adopted, and specific localised mitigation such as temporary site hoardings or noise barriers, with the aim of avoiding significant adverse effects and mitigating and minimising adverse effects. No significant adverse effects are anticipated due to construction traffic noise¹⁶⁵. Noise policy in the NPPF and Noise Policy Statement for England (“**NPSE**”) provides that significant adverse impacts on health and quality of life should be avoided, and other adverse impacts should be mitigated and minimised¹⁶⁶.

¹⁶² ES Chapter 10 – Noise (revised, April 2023) (CDC.1, Annex 4). The key guidance is DMRB LA111, and Calculation of Road Traffic Noise (“**CRTN**”) (para. 10.4.1).

¹⁶³ ES Chapter 10, section 10.6 (CDC.1, Annex 4); and Figure 10.1 (Noise Location Plan) (CDA.16 – ES Chapter 10 Noise and Vibration Figures).

¹⁶⁴ Draft condition no.2 (CDQ.1).

¹⁶⁵ Andrew Pagett proof paras. 2.7 – 2.11.

¹⁶⁶ NPPF para. 191 (INQ-17); Noise Policy Statement for England page 9 (INQ-52).

The significant adverse effects only occur at a small number of individual receptors or groups of receptors, and will be temporary. The NPSE policy expressly requires noise to be considered in the context of sustainable development¹⁶⁷, and in that context these impacts cannot be said to lead to conflict with policy.

107. In terms of **operation**, the Scheme is anticipated to result in reductions in traffic noise levels along existing roads that are bypassed by the Scheme, including through the villages of Sutton Courtenay, Culham, Appleford, Long Wittenham, Clifton Hampden and Burcot. Overall, far more properties experience a reduction in traffic noise levels than an increase. In particular:
- a. 1862 residential properties predicted to experience a minor, moderate or major decrease in the short term (341 in the long term) compared with 187 experiencing an increase (181 in the long term), based on the façade with the greatest magnitude of change.
 - b. A sensitivity test indicates that low noise road surfacing, in the sections around Appleford and Clifton Hampden, is likely to reduce the increases further¹⁶⁸.
 - c. At 746 residential properties which are close to the roads in these areas, a significant beneficial effect has been identified. Significant beneficial effects are also identified at 10 non-residential sensitive receptors. This is compared with 38 residential properties and one non-residential sensitive receptor at which a significant adverse effect has been identified¹⁶⁹.
 - d. ES Figures 10.5 and 10.6 vividly illustrate how the Scheme shifts existing traffic noise, and traffic noise anticipated due to the planned growth in the area, away from villages¹⁷⁰.

¹⁶⁷ NPSE aims, page 4 (INQ-52).

¹⁶⁸ ES Chapter 10, paras. 10.10.30 and 10.10.36 (CDC.1, Annex 4).

¹⁶⁹ Andrew Pagett proof paras. 2.17 – 2.20.

¹⁷⁰ ES Chapter 10 Figures: Figure 10.5 (short term change in traffic noise levels 2024 do-minimum to 2024 do-something) and Figure 10.6 (long term change in traffic noise levels 2024 do-minimum to 2039 do-something) (CDC.1).

108. The significant adverse effects that do arise are limited in severity, as shown by the fact that only two residential properties have been identified as potentially qualifying for noise insulation works under the Noise Insulation Regulations 1975: Hill Farm and Hartwright House. Both of these are located on the Didcot to Culham River Crossing section of the Scheme, between Didcot and Appleford. The Scheme follows the alignment of the existing access route to the properties. Mitigation in the form of low noise surfacing is included in the Scheme here. In this area, the speeds are below the 75 km/hr cut off adopted in the DMRB LA 111 methodology for assuming a benefit from low noise surfacing. The sensitivity test to estimate the likely benefit of low noise surfacing indicates some reduction in traffic noise levels is likely, albeit this will not be sufficient to remove qualification for noise insulation¹⁷¹.
109. In addition to the low noise surfacing proposed on various stretches of the Scheme¹⁷², and the design mitigation of a road which routes traffic away from settlements, noise barriers have been included: a 2.5m / 3m noise barrier on the east side of Scheme as it passes the southern end of Appleford, including over the Appleford Sidings Bridge; a 1.5m solid parapet on the east side of the Thames river crossing bridge; a 3m noise barrier on the south side of the Scheme as it passes Fullamoor Cottages; and a 3m noise barrier on the south side of the Scheme as it passes Clifton Hampden. These were developed in conjunction with the Scheme's landscape architect to achieve a balance of impacts in respect of noise and landscape/visual considerations¹⁷³.
110. In terms of policy compliance with the NPPF and NPSE, many properties will experience noise levels above the significant observed adverse effect level ("SOAEL") with or without the Scheme, but it is important to consider the extent to which the Scheme gives rise to any such levels. The number of residential buildings above the SOAEL is

¹⁷¹ Andrew Pagett proof para. 2.22.

¹⁷² See ES Chapter 10 para. 10.9.13 (CDC.1, Annex 4) and ES Figure 10.1 (Noise Location Plan) (CDA.16).

¹⁷³ ES Chapter 10 para. 10.9.12 (CDC.1, Annex 4). Also see ES Fig. 10.1 for location of noise mitigation (CDA.16).

considerably lower with the Scheme both in 2024 and 2039 than without the Scheme¹⁷⁴. Accordingly, the Scheme reduces SOAEL impacts overall. Further¹⁷⁵:

- a. Comparing the 2024 with and without Scheme positions, there are only 11 residential buildings anticipated to experience an increase in traffic noise which takes them from below the SOAEL to above the SOAEL. These are all located on existing roads, not close to the Scheme, predominately on the A4130 along the northern edge of Didcot where the magnitude of the increase is negligible. The introduction of noise mitigation measures such as noise barriers along existing roads away from the Scheme to mitigate slight (non-significant) increases in traffic noise at a small number of properties is not considered to be in line with the principle of sustainable development.
- b. In terms of the future position, no 'without Scheme' results are available for 2039 because the traffic model results in gridlock. Accordingly, although the increase in traffic flows from new development results in an overall increase of 61 in the number of residential buildings above the SOAEL in the with Scheme 2039 scenario compared to the with Scheme 2024 scenario, it is not possible to confirm how many of these would have occurred anyway without the Scheme. However:
 - i. The majority are located away from the Scheme mainly in Didcot and Sutton Courtenay and are, therefore, not directly related to the Scheme.
 - ii. A small number are located on the B4015 between the Scheme and the A4074 (Rough Lodge and Golden Balls), which is anticipated to undergo a significant increase in traffic due to housing growth in the future year only, increasing traffic noise levels to slightly over the SOAEL. Noise barriers are not considered to be a sustainable option at these properties as the effect is limited to a small number of individual properties remote

¹⁷⁴ ES Chapter 10 Table 10.15 (Number of residential buildings above the SOAEL) (CDC.1, Annex 4, p.52).

¹⁷⁵ See ES Chapter 10, paras. 10.10.54 – 10.10.76, including Table 10.14 (Summary of operational traffic environmental effects; p.42) and Table 10.15 (Number of residential buildings above the SOAEL; p.52) (CDC.1, Annex 4).

from the Scheme and the increase in traffic noise is due to anticipated traffic growth on the B4015 from other developments in the area, therefore mitigation within the Scheme design would not change the impact at these properties.

- iii. Two are located on the Scheme between Didcot and Appleford (Hill Farm and Hartwright House). In this area the speed limit is 30 mph, and a lower speed limit is not considered practicable. Low noise surfacing has been included on this section of the Scheme. Barriers are not considered to be a practicable option due to the need to maintain access into the properties.

111. In light of the above, the first NPSE aim to avoid exceedances of the SOAEL as a result of the Scheme, within the context of sustainable development, has been met. The second aim has also been met with by incorporation of a range of mitigation measures into the Scheme design. Detailed consideration has been given to mitigation at properties affected due to the Scheme and it has been concluded that no additional mitigation is appropriate, balancing noise and other relevant considerations¹⁷⁶. Finally, this is a case where the third aim can also be complied with, even though it is not a mandatory requirement: “*where possible, contribute to the improvement of health and quality of life*”. The overall noise benefits to which the Scheme gives rise achieve that goal. The above position also leads to compliance with development plan noise policy¹⁷⁷.

112. Various points raised by objectors in respect of noise provide no basis to go behind these conclusions. Mr Pagett’s proof and rebuttal deal with them in turn and comprehensively, and it is important to note that no expert noise evidence has been adduced by any objector. As to certain points of objection which were prominent in the objectors’ cases, the position is as follows:

¹⁷⁶ ES Chapter 10, paras. 10.10.67 – 10.10.75 (CDC.1, Annex 4).

¹⁷⁷ In particular Development Policies 23 and 25 of the VWHLPP2 (CDG.2.7) and Policies ENV12 and DES6 of the SOLP (CDG.1).

a. In terms of **impacts on properties in Appleford**:

- i. No new exceedances of the SOAEL due to the Scheme are identified within Appleford. The first aim of noise policy is therefore complied with.
- ii. 79 properties in Appleford are identified as experiencing a likely significant beneficial effect due to a reduction in traffic noise levels on the B4016 Main Road.
- iii. 19 properties at the south end of Appleford, and a standalone property to the south of the village, are identified as experiencing a likely significant adverse effect due to increases in traffic noise levels on west elevations (facing the Scheme). This reflects a conservative approach as many of these properties are predicted to experience benefits of a similar magnitude on the east elevation (facing the B4016 Main Road). Mitigation in the form of low noise surfacing on the Scheme and a 3-metre barrier along the Scheme is proposed in the vicinity of this location. Additional mitigation options were explored, but in the context of sustainable development these were not considered appropriate. Increasing the barrier height to 4 metres was considered but 3 metres was concluded to be an appropriate balance between noise and landscape/visual impacts, noting that the additional benefit of a 4-metre barrier is limited at up to around 1 dB. Extending the barrier northwards or southwards would not provide appreciable additional noise benefits. The speed limit on this section of the Scheme is 50 mph and a reduction would not support achievement of the Scheme objectives. In this location a 'false cutting' is not feasible due to the landfill site and the vertical clearance required at the rail sidings. On the basis of the above, no additional mitigation, beyond that included in the Scheme, is considered appropriate in this location in the context of sustainable development, and the requirements of the second aim of noise policy are therefore met¹⁷⁸.

¹⁷⁸ Mr Pagett proof paras. 3.2 – 3.7.

- b. The **Noise Important Area** (“**NIA**”) referred to by objectors comprises only one building on Main Road which is the closest to the rail sidings, and the NIA relates to rail noise only. It is the rail operator’s duty (not the highway authority’s) to address noise levels in this NIA¹⁷⁹.
- c. As to **Nuneham Courtenay**, the village sits outside of the defined study area for the detailed operational traffic noise predictions. However, all links in the traffic model are considered as part of the assessment, initially using a spreadsheet calculation looking at the ‘Basic Noise Level’ (“**BNL**”), to identify affected routes (with at least a minor change in BNL due to the Scheme). The BNL change on the A4074 south of Nuneham Courtenay was negligible, and therefore these links were not identified as affected routes. Nuneham Courtenay was not considered further in the assessment as no potential for significant adverse traffic noise effects was identified in this location¹⁸⁰. The with HIF1 traffic flows at Nuneham Courtenay at 2024 and 2034 are 2% and 6% above the corresponding without scheme traffic flows respectively. Ms Scott explained that if all other factors are unchanged a 25% increase in traffic flow was generally required to cause a 1dB increase in noise, which is the boundary between a negligible and minor impact. A doubling in traffic flows is generally required to cause a 3dB increase, which is needed for the increase to be perceptible. Therefore, the impact at Nuneham Courtenay is well below any conceivable noise impact¹⁸¹.
- d. In respect of **any contribution to noise due to vehicles needing to accelerate up the Appleford Sidings Bridge**, vehicle speed and road gradient are included in the CRTN prediction methodology. Also, the bridge at Appleford is part of a longer embankment rather than a sudden increase and decrease in height, such that the specific noise contribution of vehicles accelerating and decelerating in this area is unlikely to be a notable contribution to the noise impact of the Scheme¹⁸².

¹⁷⁹ In accordance with paragraph 3.1 of the *Defra Noise Action Plan: Railways (2019)*: see Mr Pagett’s proof paras. 3.10 – 3.11.

¹⁸⁰ Mr Pagett proof para. 3.20.

¹⁸¹ Ms Scott evidence in chief (day 14, 18 April 2024). For the Nuneham Courtenay traffic flows, see INQ-67.

¹⁸² Mr Pagett proof para. 3.38.

- e. As to Mr Hancock’s concern about the **Appleford Sidings Bridge amplifying noise due to a supposed ‘tunnel effect’**, Ms Scott confirmed that a much longer tunnel would be needed to create any significant effect. What is proposed is a bridge, not a tunnel, as she said. She further explained that the sides are not solid but columns holding a roof, which again would minimise any effect¹⁸³.
- f. As to Dr Jones’s concern about **Appleford being downwind from the Appleford Sidings Bridge**, the prediction method in CRTN assumes noise propagation consistent with moderately adverse wind velocities and directions, such that traffic noise being worse downwind is already accounted for in the prediction method. The 3D alignment of the Scheme is also included within the computer model of the Scheme¹⁸⁴.
- g. As to Dr Jones’ concern about **suggested increased HGV use of the Appleford Sidings Bridge**, Ms Currie’s rebuttal confirms that the traffic modelling takes account of HGV movements¹⁸⁵. The traffic noise predictions likewise include the percentage of HGVs. Further it should be noted that the aggregate (Heidelberg) and waste (FCC) operators to the west of the Appleford Sidings Bridge are subject to routeing agreements in their planning permissions, which mean that they are obliged to route their HGV movements south to the Didcot perimeter road then onto the A4130 to the A34, other than in respect of local deliveries. The Scheme will not change that, so it is incorrect to suggest that the Scheme heading north will become a principal new route for HGVs from those sites. The presence of the Scheme on an embankment will also offer some screening to Appleford from the existing noise sources from these industrial sites to the west¹⁸⁶. Contrary to objectors’ concerns, the noise barrier will not reflect rail noise back to Appleford properties, because the noise barrier will sit atop an embankment at this point,

¹⁸³ Evidence in chief (day 14, 18 April 2024).

¹⁸⁴ Mr Pagett rebuttal para. 4.6.

¹⁸⁵ Ms Currie rebuttal paras. 3.6 – 3.8.

¹⁸⁶ Mr Pagett rebuttal para. 4.6.

at a higher elevation than both the railway and the houses, such that noise from rail traffic will be reflected upwards, rather than towards the properties¹⁸⁷.

Conclusions on issue 6

113. The points raised by objectors do not detract from the clear conclusion that there is compliance with noise policy in this case, and the fact that, notwithstanding some recognised adverse effects, overall the Scheme is significantly positive in taking traffic away from residential receptors and significantly reducing the numbers of properties exposed to higher levels of traffic noise¹⁸⁸.

Issue 7: whether the proposal would be acceptable in terms of air quality

114. Scheme effects in respect of air quality have been fully assessed within the ES¹⁸⁹. The assessment considered impacts during the construction and operation of the Scheme, in accordance with the methodology and guidance set out in DMRB LA105 Air Quality and technical guidance issued by Defra (LAQM.TG16). The detailed modelling study area focused on those roads that exceed one or more of the traffic screening criteria set out in DMRB LA105¹⁹⁰. Model predictions were made at selected receptors located within 200m of the road network. The study area for the construction dust assessment considered all sensitive receptors within 200m of identified construction activities.

115. In respect of **construction**, the assessment found that any potential dust effects will be mitigated by the application of the mitigation measures set out in the CEMP and implemented by the construction contractor, with the CEMP incorporating a Dust Management Plan¹⁹¹. With those measures, significant air quality effects during the Scheme construction phase will be avoided. The changes in concentrations due to

¹⁸⁷ Mr Pagett proof para. 3.52.

¹⁸⁸ See, for example, the noise maps at CD C.1 Annex 4 Figures 10.5 and 10.6.

¹⁸⁹ ES Chapter 6 – Air Quality (CDA.15.6).

¹⁹⁰ The study area is shown in ES Figure 6.1 (air quality study area) (CDA.16.2). On the screening criteria, see para. 6.4.13 of ES Chapter 6 (CDA.15.6), and Fig. 6.2 (air quality receptors – operational assessment) (CDA.16.2).

¹⁹¹ Secured by draft condition no. 3 (CDQ.1).

emissions from additional traffic flows associated with the construction phase are expected to be imperceptible at all selected public exposure receptors¹⁹².

116. In respect of **operational** air quality, no receptors are predicted to experience an exceedance of the relevant UK objective for annual mean NO₂, PM₁₀ or PM_{2.5}, therefore no likely significant air quality effects are predicted. Additionally, the compliance risk assessment indicates that Scheme operation would not influence the UK's ability to comply with the Air Quality Directive. Overall, there are not anticipated to be any likely significant air quality effects¹⁹³. The robustness of the ES assessment is further underscored by the more recent NO₂ monitoring data published since the ES assessment which shows air quality continues to improve in South Oxfordshire and Vale of White Horse districts. In addition, a sensitivity test has been conducted to re-run the air quality models in light of updates by Defra and National Highways to their modelling tools, which shows similar result to those in the ES¹⁹⁴.

117. As such, the Scheme is compliant with planning policy on air quality in the NPPF (para. 192) and the development plan¹⁹⁵. Officers for OCC as the LPA agreed, and SODC and VWHDC also have no objection¹⁹⁶.

118. Various points raised by objectors in respect of air quality provide no basis to go behind these conclusions. Ms Savage's proof and rebuttal deals with them in turn and comprehensively, and no expert air quality evidence has been adduced by any objector. As to certain points of objection which were prominent in the objectors' evidence to the inquiry, the position is as follows:

- a. In respect of **impacts in Appleford**, Ms Savage has explained that the overall conclusion of the Chapter 6 of the ES is that concentrations of local air quality pollutants are below the objectives and air quality is good across the study area, including in Appleford. Within the village of Appleford, the air quality assessment

¹⁹² Paragraph 6.12.1 – 6.12.2 of ES Chapter 6 (CDA.15.6).

¹⁹³ Paragraphs 6.10.11 and 6.12.3 – 6.12.5.

¹⁹⁴ Anna Savage proof paras. 2.48 – 2.49.

¹⁹⁵ Especially Policies EP1, ENV12 and DES6 of the SOLP (CDG.1) and Development Policies 23 and 26 of the VHWLPP2 (CDG.2.7).

¹⁹⁶ See officer report for 17-18 July 2023 committee meeting at paras 160 – 170 (CDF.1).

predicted that there would be improvements in NO₂ concentrations at residential properties close to the Main Road due to the Scheme, with some increases in concentrations predicted at properties near the railway line such as Hall Farm¹⁹⁷. Overall, as pollutant concentrations are low, none of these impacts were considered significant. The improvements in concentrations predicted at properties along the Main Road are primarily because traffic levels are predicted to reduce along this road¹⁹⁸.

- b. As to **air quality concerns related to the Appleford Sidings Bridge being raised**, the assessment was conducted at ground level which is standard practice, accords with DMRB LA105 and is considered to provide a worst-case scenario. A sensitivity test was modelled at an elevation of 5m and 10m and reported in AECOM's response of 27 October 2022, which showed that if the road was modelled at height, pollutant concentrations at the properties nearest to the Scheme would be lower due to greater dispersion from vehicle emissions¹⁹⁹.
- c. As to **concerns about the gradient of the Appleford Sidings Bridge affecting air quality emissions**, Ms Savage gave her expert view based on experience that in so far as there may be an increase in emissions accelerating uphill, this is generally balanced out by a reduction in emissions decelerating downhill, resulting in a neutral overall impact; the relatively shallow gradient at a maximum of c.4% in the present case further confirms this²⁰⁰.
- d. As to Dr Jones's **concerns about Appleford being downwind from the Scheme**, the prevailing wind direction in the meteorological data that was used in the air quality model was from the southwest, so the assessment has taken account of Dr Jones's concern²⁰¹.

¹⁹⁷ ES Appendix 6.2 local modelling results (CDA.17.9) paras. 1.2.12 and 1.2.13. The receptor locations are shown on ES Figure 6.2 (air quality receptors – operational assessment) (CDA.16.3).

¹⁹⁸ Anna Savage proof paras. 3.20 – 3.22; rebuttal paras. 2.1 – 2.13.

¹⁹⁹ Anna Savage proof para. 3.29; Aecom Memo – Appleford Parish Council – Air Quality Comments Response, 27 October 2022, at Appendix A Modelling Sensitivity Tests (CDB.2, Appendix S).

²⁰⁰ Anna Savage proof para. 3.32 and evidence in chief (day 13, 17 April 2024).

²⁰¹ Anna Savage rebuttal para. 3.8 – 3.9.

- e. As to **concerns about PM_{2.5}**:
- i. At the time of the ES, the assessment of PM_{2.5} was not a requirement of DMRB LA 105, because the UK currently meets its legal requirements for the achievement of the PM_{2.5} air quality objective of 25µg/m³. In any event, the ES assessment utilised the modelling of PM₁₀ to demonstrate that the Scheme does not impact on the PM_{2.5} air quality objective²⁰².
 - ii. Subsequently, in January 2023 a new annual mean target for PM_{2.5} of 10µg/m³ by 2040 was set²⁰³ with an interim target set in the Environmental Improvement Plan 2023 of 12µg/m³ by the end of January 2028²⁰⁴. , Updates to Defra’s Vehicle Emissions Factors Toolkit and to National Highways’ modelling tools were issued in 2023 and 2024 respectively. The new modelling tools included the ability to model PM_{2.5} for the first time, and an updated model run showed PM_{2.5} concentrations are below the interim target and will be below the national target (to be met at monitoring sites) by the required date of 2040. In fact, monitoring in the wider area is below the new objective and predicted levels at 2024 with the Scheme in place are either already compliant or close to the new objective at all modelled receptors²⁰⁵.
- f. As to **concerns about Abingdon and Nuneham Courtenay**, the air quality assessment has used the flows that the traffic model provided and, although this did not include roads within Abingdon or Nuneham Courtenay, it did include traffic flows on the A415 from Culham to Abingdon and on the A4074 south of Nuneham Courtenay. As part of the air quality assessment, changes in traffic flow and speed on this road were compared against the traffic scoping criteria in DMRB LA105 guidance. As the traffic changes anticipated due to the Scheme were small and below the criteria, the air quality impacts on this road were scoped out of the assessment. Based on the fact that these criteria were not

²⁰² Paragraphs 6.4.17 and 6.10.11 of ES Chapter 6 (CDA.15.6).

²⁰³ By the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023.

²⁰⁴ See INQ-71.0 (Note on UK PM_{2.5} Targets) and 71.1 (extract from Environmental Improvement Plan 2023).

²⁰⁵ Anna Savage proof paras 2.49 and 3.49.

exceeded, this would mean that any change in pollutant concentrations due to traffic changes would be imperceptible. Further, measured concentrations of NO₂ continue to decline within the Abingdon AQMA. The latest data from SODC and VOWHDC show that there has been compliance with the annual mean objective within the AQMA for the last three years. The Council does not monitor in Nuneham Courtenay but measured levels in villages within both districts and background levels are below objectives. This shows that local air quality in the area including in Abingdon and Nuneham Courtenay is improving and overall is considered to be generally good²⁰⁶.

Conclusions on issue 7

119. Overall, the position in respect of air quality is, again, a positive one. Air quality is generally good in the area. All pollutants are well below objective values. For example, the highest predicted annual mean NO₂ concentration at an existing property is 24.5µg/m³, which is well below the 40µg/m³ annual mean air quality objective value²⁰⁷. No exceedances are predicted. The Scheme results in some reductions and some increases, but given the existing and future baseline, none of the effects will be significant.

Issue 7A: health

120. Although not specifically identified in the Inspector's list of issues, the proposed reasons for refusal mentioned the absence of a health impact assessment ("HIA"), which objectors have also raised as an issue. Impacts on health have been properly assessed and reported, as now agreed by the LPA²⁰⁸. Dr Jones was incorrect in her evidence to assert otherwise. As explained by Mr Maddox, prior to the adoption of the LTCP in 2022 after submission of the application in 2021, there was no requirement for a separate HIA to be undertaken for major infrastructure schemes. However, the relevant chapters in the Environmental Statement – in particular on population and human health (ch. 13), air quality (ch. 6), landscape and visual impact (ch. 8), and noise and vibration (ch.

²⁰⁶ Anna Savage proof paras. 3.52 – 3.53.

²⁰⁷ Anna Savage proof paras. 2.28 and 4.3.

²⁰⁸ Statement of Common Ground dated 2 November 2023, para. 19 (CDQ.1).

10) – provide all necessary information for an assessment of the impacts of the Scheme on health and wellbeing²⁰⁹. Indeed, for schemes above the EIA threshold, the ES can plainly serve the function of a HIA, unlike schemes below the threshold where a standalone HIA will be needed in the absence of ES health, noise, air quality etc. chapters. Guidance from Public Health England explains that it can be appropriate to integrate HIA within EIA²¹⁰. The adequacy of the ES in respect of health has been specifically agreed by the public health officers²¹¹. A Rapid Health Impact Assessment Review Checklist was also produced in September 2023 to provide a detailed routemap showing how health matters have been considered, signposting to locations in the application documents where this has been undertaken²¹².

121. The health assessment in ES Chapter 13 considered the impact of the Scheme on access to, inter alia, community services such as pharmacies and doctors' surgeries, and walking, cycling and horse-riding routes. The chapter also considered impacts on the health of the local population by synthesising conclusions drawn from ES Chapter 6: Air Quality, ES Chapter 8: Landscape and Visual Impacts, and ES Chapter 10: Noise and Vibration. The assessment identified that there would be a positive health outcome in relation to: improving access to healthcare and social infrastructure; providing opportunities for active travel, such as walking and cycling; operational improvements in noise pollution at a large number of properties; and road safety. The assessment outlined that there would be negative health outcomes in relation to noise impacts at smaller number of properties. A neutral health outcome was recorded in relation to air quality²¹³.

122. Dr Jones's evidence on health did not provide any detailed critique of the Applicant's evidence, and largely relied on the noise and air quality evidence from Mr Hancock,

²⁰⁹ Mr Maddox proof section 4.

²¹⁰ Health Impact Assessment in Spatial Planning, Public Health England, October 2020 (INQ-64) at para. 2.11; section 6; and Appendix 8.

²¹¹ Mr Maddox proof appendix AM2.7: consultation response dated 20 January 2023 from Healthy Place Shaping Team. NB although AM2.7 states that this was from SODC and VWHDC, in fact the public health officers are officers at OCC, as Mr Maddox clarified in evidence in chief.

²¹² Mr Maddox proof para. 4.6, and appendix AM2.6. This document uses the same structure as Appendix 3: Rapid HIA Review Checklist of the Oxfordshire Health Impact Assessment Toolkit 2021 (provided at Mr Maddox's appendix AM2.9).

²¹³ Mr Maddox proof paras. 4.3 – 4.4.

which as set out above provides no proper basis to object to the Scheme. Dr Jones's suggestion that consideration of alternatives may not have taken account of health impacts was incorrect. The optioneering process had regard to the full range of environmental considerations, including noise, air quality, and access to recreation, along with scope for active travel by walking and cycling, which are the key health considerations relied on by Dr Jones. See for example the 2021 OAR which includes consideration of these matters in the 16 options which were subject to the initial sift, and also in the sub-options such as the Didcot to Culham section route alignment²¹⁴. Mr Hancock's suggestion that ES Chapter 13 – Population and Human Health is deficient in failing to consider impacts on residents in settlements along the route of the Scheme is plainly incorrect: effects for residents of those settlements are considered extensively in this chapter and the related noise and air quality chapters of the ES, as explained by Mr Maddox²¹⁵.

Conclusions on issue 7A

123. Overall, it is clear that the Scheme is positive in terms of health effects.

Issue 8: the effect of the proposal on climate change and carbon emissions

124. The effect of the proposal on climate change and carbon emissions has been fully and properly considered in ES Chapter 15 – Climate, which assesses the effects on the climate of greenhouse gases (GHGs) arising from the construction and operation of the Scheme²¹⁶.

125. The assessment shows that GHG effects during the Scheme construction phase (which arise from matters including the embodied carbon in construction materials) are predicted to be minor adverse and therefore not significant. Scheme operation (i.e. emissions from road users) is shown to reduce GHG emissions compared to the without the Scheme scenario, thus the Scheme is predicted to have a minor beneficial effect in respect of GHG emissions during the operational phase. The reduction in GHG emissions

²¹⁴ Section 6 of the OAR 2021, which explains the assessment of the 16 options, and section 8.4, which explains the assessment of the 6 sub-options for the Didcot to Culham section (CDA.19.3)

²¹⁵ Mr Maddox rebuttal section 4.

²¹⁶ CDA.15.15.

with the Scheme in operation is due to a reduction in congestion and journey times resulting from the improvements to the road network²¹⁷.

126. Significance is determined by contextualising the emissions by reference to the UK carbon budgets, with a level of less than 1% of the carbon budget not considered to be significant²¹⁸. The Scheme's contribution to the UK's 4th carbon budget (for 2023 – 2027) is 0.0077%, comprising 154,842t CO₂e for construction and -4,601t CO₂e for operation (i.e. a reduction for operation compared with the do nothing baseline). For the 5th (2028 – 2032) and 6th (2033 – 2037) budgets, there is no construction contribution as the Scheme is built, and the operational emissions are again reduced, such that the Scheme does not contribute at all to the UK carbon budget, and creates some headroom²¹⁹.
127. Since the Environmental Statement was produced, the Department for Transport have updated the Emissions Factors Toolkit (“EFT”), with the latest version 12.0.1 being released in December 2023. The Applicant has conducted a sensitivity analysis²²⁰, which shows that the EFT v12 update has only a very slight impact on the assessment presented in the ES. The position remains, in accordance with the conclusions of the ES, that there is a minor adverse impact during construction and a minor beneficial impact during operation, and there are no likely significant effects.
128. The objectors have observed that these emission figures are dependent on the outputs of the traffic modelling, which is correct, but as explained above the traffic modelling is robust so this point goes nowhere. Indeed, even if the actual figures varied from those modelled (which is not predicted), the contributions to the UK carbon budget are so small that it would plainly make no difference to the assessment of significance in respect of GHG emissions.
129. The National Networks National Policy Statement (March 2024) (“**NNNPS**”) is not directly applicable in this case, given that the Scheme is not being determined under the 2008 Act regime. The NNNPS explains, however, that it may be a material

²¹⁷ ES Chapter 8, para. 15.10.11 (CDA.15.15).

²¹⁸ ES Chapter 8, paras. 15.4.14 – 15.4.23 (CDA.15.15).

²¹⁹ Tables 15.15, 15.16, and 15.17 in ES Chapter 8 (CDA.15.15).

²²⁰ Technical Note – Didcot Garden HIF1 – Road user emissions update since the environmental statement – 21 March 2024 (INQ-55).

consideration for other consenting routes, such as the Town and Country Planning Act 1990 under which the Scheme is being determined²²¹. At para. 5.42, it provides:

“Operational emissions will be addressed in a managed, economy wide manner, to ensure consistency with carbon budgets, net zero and our international climate commitments. Therefore, approval of schemes with residual carbon emissions is allowable and can be consistent with meeting net zero. However, where the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of government to achieve its statutory carbon budgets, the Secretary of State should refuse consent.”

130. That clearly accords with, and supports, the Applicant’s approach. Residual carbon emissions are not in themselves a basis to object to a scheme. The HIF1 Scheme, in accordance with that policy, will not result in an increase in carbon emissions which is so significant that it would have a material impact on the ability of the government to achieve its statutory carbon budgets.
131. Government policy on decarbonising the transport sector is contained in the Transport Decarbonisation Plan (“**TDP**”). It will be achieved in large part through non-planning measures, i.e. not by refusing planning permission for individual road schemes. Rather there is a strategy comprising measures such as banning the sale of new petrol and diesel cars from 2035, promoting walking and cycling, and bringing forward zero-emission buses²²². It is not government policy for there to be a moratorium or review of all road-building schemes. In its response to the Climate Change Committee’s (“**CCC**”) 2023 Annual Progress Report to Parliament (October 2023), the Government did not accept the CCC’s recommendation to conduct a review of current and future road-building projects, and instead explained that environmental assessment of individual road projects would “allow consenting authorities to assess the project’s consistency with the Government’s goals and legislation”²²³. The relevant legislative obligations are in the Climate Change Act 2008, which provide for the setting of carbon budgets and require the Secretary of State to ensure that the budget is not exceeded²²⁴. As set out above,

²²¹ Paragraph 1.9 (INQ-60.1).

²²² Decarbonising Transport, 2021 at Chris Landsburgh proof appendices (part 2), Appendix 2, pdf p.250. See e.g. pdf p.336 for the measures promoted.

²²³ R2023-148 at pdf p.184-185 (INQ-46).

²²⁴ Section 4.

the Scheme is consistent with that. Various objectors have referred to the Paris Agreement, but the Climate Change Act 2008 and the delegated legislation by which the carbon budgets are set is the UK's mechanism for complying with its obligations under to the Paris Agreement. For that reason, it is incorrect to suggest that the Scheme is in conflict with the Paris Agreement.

132. The Government's Response to the Transport Select Committee's Report on the draft revised National Networks National Policy Statement (March 2024), further re-iterated the points made in response to the CCC's Annual Progress Report to Parliament²²⁵.

133. Objectors' focus on local carbon budgets is misplaced, for several reasons.

a. Local carbon budgets have no basis in law or policy, unlike the national carbon budgets (as set out above). Local carbon budgets are an approach proposed by the Tyndall Centre, which is a university-based research organisation.

b. In *Bristol Airport Action Network Co-ordinating Committee v Secretary of State for Levelling Up, Housing and Communities* [2023] EWHC 171, a challenge to the Inspectors' decision on the expansion of Bristol Airport where an objector argued that GHG emissions should be judged against Tyndall Centre local carbon budget for North Somerset Council area, the High Court stated (para 171):

"Applying these principles, I am in no doubt that the Panel did not act irrationally in giving the issue of local carbon budgets no weight, on the ground that such budgets have no basis either in law or in policy. They plainly have no basis in law. Contrary to [Counsel for the Claimant]'s submission, the fact that they have no basis in policy is significant, given that, in the planning field, we are concerned with decision-making which is intensely concerned with matters of policy.

c. Assessment against UK national carbon budgets has been confirmed as lawful by the High Court. In *R (Boswell) v Secretary of State for Transport* [2023] EWHC 1710, the Court stated (para. 6(v)):

"Recent caselaw confirms that, on the basis of current policy and law, it is permissible for a decision maker to look at the scale of carbon emissions

²²⁵ See response to Recommendation 2, pdf p.8 (INQ-47).

relative to a national target. The proposition that the impact of carbon emissions is not limited to a geographical boundary is a scientific assessment to which the Court should afford respect.”²²⁶

- d. Road user emissions are cross-boundary given the mobile nature of vehicles, as are construction emissions (in that construction materials may be sourced and transported from other areas). The impact of emissions is also not limited to a geographical boundary, as observed in *Boswell*. That all supports the use of national rather than local carbon budgets.
- e. The CCC in its document ‘Local Authorities and the 6th Carbon Budget’ likewise advises:

“The CCC encourages local authorities to develop plans consistent with the Sixth Carbon Budget and the local pathway towards Net Zero. But it does not recommend setting local carbon budgets due to multiple drivers of emissions beyond local control.”²²⁷

- f. LTCP Policy 27 provides that “We will ... b. take into account embodied, operational and user emissions when assessing a potential infrastructure project and its contribution to Oxfordshire’s carbon budget and to a net-zero transport network by 2040”. But no local carbon budget has been set for Oxfordshire pursuant to this policy²²⁸, such that it provides nothing to assess against. The LTCP also supports and seeks to be aligned with the TDP²²⁹.

134. Mr Ng’s evidence provides no basis for disagreeing with the above approach. In particular:

- a. Mr Ng sought to compare emissions from the Scheme against what he referred to as a carbon budget for Oxfordshire from the Tyndall Centre. That exercise is inappropriate in principle for the reasons set out above.

²²⁶ The High Court judgment in the *Boswell* case has been upheld by the Court of Appeal: [2024] EWCA Civ 145.

²²⁷ Side-text on pdf p.47 (INQ-45).

²²⁸ As explained by Mr Landsburgh (evidence in chief, day 11 - 28 March 2024), and accepted by Mr Ng in cross-examination by Mr Humphries (day 9 – 26 March 2024).

²²⁹ See p.27 and 29 (CDG.4).

- b. The exercise is also flawed because the Tyndall Centre budget is an energy-only budget, which does not include transport sector emissions (so far as the Applicant understands, and Mr Ng was unable to provide any clear evidence to the contrary)²³⁰.
- c. Further, the Applicant's consultants spoke to Dr Chris Jones from the Tyndall Centre in May 2022 to discuss the use of the Tyndall Centre budgets for contextualising the GHG impact of infrastructure schemes and Dr Jones confirmed the budgets are not appropriate for this purpose²³¹.
- d. Mr Ng starts his trajectory in 2020, such that the trajectory is only not met because of the 2021 pandemic year, which was an anomalous year as he accepted²³². If the trajectory had been started earlier (in accordance with what is standard carbon accounting practice), in 2019, then there would be no departure from the trajectory.
- e. Finally, Mr Ng's calculations expressly and heavily rely on the assumption that the Scheme will give rise to induced traffic²³³. That is flawed. Mr Ng stated that he based his assumptions as to induced traffic on research by the Transport for Quality of Life organisation concerning 63 schemes. Mr Landsburgh however explained that these schemes comprised a wide range of type of project, including motorways and tunnels, many of which were not at all comparable to the HIF1 Scheme, and a number were old (including over 12 years old)²³⁴. For the HIF1 Scheme, on the other hand, there is scheme-specific modelling data which robustly shows that induced traffic is not anticipated. That evidence is plainly to be preferred to the generalised data including from very different types of project which Mr Ng has used.

135. Mitigation measures have been embedded into the Scheme design to minimise the effects of carbon emissions. These include design enhancements, more efficient

²³⁰ Chris Landsburgh rebuttal para. 3.12; Mr Ng cross examination by Mr Humphries (day 9 – 26 March 2024).

²³¹ Chris Landsburgh rebuttal para. 3.13.

²³² Cross-examination by Mr Humphries KC (day 9, 26 March 2024). See Mr Ng proof fig. 1, p.2.

²³³ Mr Ng proof paras. 9 – 10.

²³⁴ Evidence in chief (day 11, 29 March 2024).

construction processes, and a focus on reuse of materials and waste reduction. These mitigation measures are secured through their inclusion in the Construction Environmental Management Plan (“CEMP”) and the Site Waste Management Plan (“SWMP”), which will be included within the CEMP. GHG mitigation measures include energy-efficient road lighting design and encouraging low-carbon forms of transport through the construction of the shared cycleways / footways. In addition, a carbon management plan (“CMP”) is required by condition to support carbon reductions, by quantifying emissions, setting targets, monitoring and reporting²³⁵.

Conclusions on issue 8

136. Overall, therefore, there will be no significant climate effects during construction or operation, and operation will have a minor beneficial effect due to a reduction in congestion and journey times resulting from the improvements to the road network. There is compliance with policy and no conflict with domestic or international commitments under the Climate Change Act 2008 or Paris Agreement respectively. It is government policy to address emissions in a managed, economy-wide manner, and not for there to be a moratorium or review of all road-building schemes.

Issue 9: whether the proposed bridge would deliver the high-quality design sought by the Framework and development plan policies

137. As explained by Mr Blanchard in his written and oral evidence²³⁶, the design of the Didcot Science Bridge involved overcoming a number of engineering constraints which inevitably play a significant role in its final form, in particular the fact that it crosses the electrified Great Western Mainline, and also the need to tie-in to the highway and the developments to the north and south and on the land available. Certain architectural enhancements would be unsuitable for the bridge, largely because they would introduce potential health and safety risks and/or make carrying out routine structural inspections more challenging. This includes cladding/façades and faux structural elements, such as arched beams suspended above the railway and/or highway, which

²³⁵ Conditions 25 and 36, Statement of Common Ground dated 2 November 2023 (CDQ.1). Mr Maddox in the conditions session suggested that such a condition should be limited to (say) 10 years after opening.

²³⁶ Mr Blanchard proof paras. 3.2 – 3.10; evidence in chief (day 6, 28 March 2024).

would obscure structural elements of the bridge which then cannot be readily inspected. Cost is also a consideration: inclined abutments with vertical or V-shaped piers might be feasible but would be more expensive and may make inspections more difficult as they would introduce 'harder-to-reach' areas of the structure, particularly at height. Design policy in the NPPF (chapter 12) and the development plan has an emphasis on good design, but plainly does not suggest that these essential practical considerations are unimportant.

138. The merits of the aesthetic design of the bridge involve a significant degree of judgement, but the Applicant considers that it will be perceived as a well-designed and attractive structure, in keeping within its surroundings and contributing positively to the Garden Town ambitions of Didcot. The LVIA assessed the views at the various viewpoints which will include the bridge as having no significant adverse impacts²³⁷, notwithstanding that it is necessarily a large structure. The photomontages for viewpoints 4 and 7 show the bridge to integrate well into its surroundings, and the planting proposed is particularly effective in this respect. In the viewpoint 7 photomontage, the bridge is a positive design feature in a view which is otherwise influenced by very functional industrial and commercial structures.
139. There is potential for further design enhancement within the planning permission applied for, as noted by Mr Blanchard, including: cast-in textures on concrete substructures (i.e., pier columns and abutments); the ends of the pier crossheads could have architectural features on; structure illumination (up-lighting); and the internal faces of the solid bridge parapets could provide a canvas to exhibit artwork, for example contributed by local school children, with a science-led theme²³⁸. An agreed condition requires details of the external appearance of bridge (and the Appleford Sidings Bridge and the Thames Bridge and viaduct) to be approved by the County LPA, which will enable any such design enhancements to be secured²³⁹.

²³⁷ ES Appendix 8.6 (CDA.17.18).

²³⁸ Mr Blanchard proof para. 3.7.

²³⁹ Condition no.8 (CDQ.1).

Conclusions on issue 9

140. For these reasons, the design of the Didcot Science Bridge, and the Scheme generally, will accord with design policy in the NPPF and in the development plans. In particular, Policy 16b of the VWHLPP2 expects development to positively contribute to the Didcot Garden Town Masterplan Principles, which include “*encourage pioneering architecture of buildings*” (Principle 1)²⁴⁰. The high quality design of the Didcot Science Bridge positively contributes to that principle (to the extent that is applicable, given that it is particularly concerned with buildings, rather than highway infrastructure). That principle also needs to be read alongside and balanced with the other principles, including principle no.4 which seeks a step-change towards active and public transport, which the active travel provision across the Didcot Science Bridge and throughout the rest of the Scheme will promote. The Science Bridge will also be a “*recognisable landmark*” in accordance with the Didcot Garden Town Delivery Plan²⁴¹.

Issue 10: the effect of the proposal on biodiversity, including Biodiversity Net Gain and whether a Habitats Regulations Assessment (HRA) Screening should be undertaken for Cothill Fen Special Area of Conservation (SAC) and Little Wittenham (SAC)

141. The effect of the Scheme on biodiversity was comprehensively considered in ES Chapter 9: Biodiversity, which concluded that there would be no significant residual effects resulting from construction or operation of the Scheme, with the implementation of mitigation measures. The assessment further concluded that the Scheme is expected to result in a slight positive effect in the medium to long term, once habitats have matured, as a result of the overall biodiversity net gain²⁴². The LPA’s officers raised no concerns in respect of biodiversity and concluded that “*subject to the conditions being included as recommended, the development would be in accordance with development plan and national policies that seek to protect and enhance biodiversity*”²⁴³. In respect of the

²⁴⁰ CDG.2.7, p.54-55.

²⁴¹ Section 9, page 355 (CDG.6)

²⁴² ES Chapter 9 – Biodiversity (October 2022 (revised)), sections 9.13 – 9.15 (CDB.1, Annex 5).

²⁴³ Report to the 17-18 July 2023 meeting of the Planning and Regulatory Committee, para. 219 (also see generally paras. 205 – 219 on biodiversity) (CDF.1).

Inspector’s oral question to Mr Greep regarding species relocation, only two species might require relocation: European eel, which would be subject to fish rescue, removal and translocation should this be required during construction; and badger²⁴⁴.

142. As to Biodiversity Net Gain (“**BNG**”), Professor Wade’s Technical Note explains that a Biodiversity Net Gain Assessment was produced which concluded that the Scheme would achieve a BNG of at least 10%, in compliance with policy²⁴⁵. The LPA’s officers accepted this conclusion²⁴⁶.
143. Screening has been undertaken under the Conservation of Habitats and Species Regulations 2017 (“**the Habitats Regulations**”). The screening exercise considered the Cothill Fen SAC and Little Wittenham SAC. The screening concluded that there are no source-receptor pathways by which the Scheme could impact a European Site during the construction or operation of the Scheme and, consequently, there would be no likely significant effects, either alone or in combination with other plans or projects²⁴⁷. The LPA’s officers accepted this conclusion²⁴⁸.
144. There would be no significant adverse effect on biodiversity in respect of the Bridge Farm Quarry, raised by Mr James, as explained in the Applicant’s Technical Note dated 27 March 2024²⁴⁹ responding to Mr James’ supplementary proof of evidence²⁵⁰. The Technical Note also deals with the relationship with the restoration of Bridge Farm Quarry more generally, and draft condition no.28 precludes development within the Didcot to Culham River Crossing section of the scheme until revised restoration and

²⁴⁴ ES Chapter 9 – Biodiversity (October 2022 (revised)) (CDB.1, Annex 5) at Table 9.9 (pdf p.260), 9.10.30 – 9.10.31, and 9.10.40 – 9.10.41. Although the Inspector’s question may have suggested **that the Scheme might impact two “critically endangered” species which might need translocating**, in fact European eel **is the only critically endangered species identified within the Scheme** (under the “IUCN Red List of Threatened Species” – see Table 9.9).

²⁴⁵ Professor Wade’s Technical Note dated 30 January 2024 is at Appendix AM2.4 to Mr Maddox’s proof. See Section 3 – Biodiversity Enhancement. The latest version of the Biodiversity Net Gain Assessment (April 2023) is at CDC.2 Appendix I.

²⁴⁶ Report to the 17-18 July 2023 meeting of the Planning and Regulatory Committee, paras. 215 - 218 (CDF.1).

²⁴⁷ Habitats Regulation Assessment: No Likely Significant Effects Report, October 2022, at para 5.1.1 (CDB.02 Appendix X).

²⁴⁸ Report to the 17-18 July 2023 meeting of the Planning and Regulatory Committee, para. 209 (CDF.1).

²⁴⁹ INQ-61 para. 13ff.

²⁵⁰ INQ-50.

aftercare schemes have been submitted to and approved in writing by the County Planning Authority for Bridge Farm Quarry.

145. Further appropriate conditions are also proposed, as recommended by LPA officers²⁵¹.

Conclusions on issue 10

146. For the above reasons, there is no proper biodiversity reason for refusing planning permission for the Scheme.

Issue 11: the effect of the proposal on the significance of heritage assets

147. Effects of the Scheme in respect of heritage assets have been comprehensively assessed in ES Chapter 7 – Cultural Heritage²⁵², as supplemented by the Heritage Technical Note by Dr Gillian Scott on behalf of the Applicant²⁵³, and the Further Heritage Technical Note by Dr Scott dated 9 February 2024²⁵⁴. In EIA terms, the assessments concluded that there will be no likely significant effects on any heritage assets, including archaeological assets, historic landscape character, and designated and non-designated built heritage assets²⁵⁵. In terms of heritage harm as categorised by NPPF paras. 205 – 214, the Scheme will give rise to less than substantial harm only, alongside some heritage benefits. In particular:

- a. The Scheme will cause less than substantial harm to the **Grade I Registered Park and Garden at Nuneham Courtenay and the Nuneham Courtenay Conservation Area** through change to their settings. This harm is at the low end of less than substantial, due to it being focused in areas that are not within key designed views towards or from the parkland, or on its approaches. No harm will be caused to the individual listed buildings within these areas²⁵⁶. Suggestions by objectors that the

²⁵¹ Report to the 17-18 July 2023 meeting of the Planning and Regulatory Committee, para. 218 (CDF.1). See draft proposed conditions 3 (CEMP), 11 (LEMP), 12 (updated protected species surveys), 13 (biodiversity mitigation and enhancement strategy), 14 (BNG assessment), 28 (regarding Bridge Farm Quarry) (CDQ.1, para. 22).

²⁵² April 2023 revised version (CDC.1, Annex 3).

²⁵³ Contained at Appendix BG2.4 to Mr Greep's proof of evidence.

²⁵⁴ Submitted at the same time as the Applicant's rebuttal proofs of evidence.

²⁵⁵ ES Ch 7, section 7.13 (CDC.1, Annex 3)

²⁵⁶ ES Ch 7, paras. 7.10.21 – 7.10.29, 7.10.47, 7.12.3 (CDC.1, Annex 3). Dr Scott Heritage Technical Note paras. 2.21 – 2.33 (Appendix BG2.4).

Scheme causes harm to Nuneham Courtenay by reason of increased traffic flows are incorrect given that the Scheme will not give rise to increases in traffic volumes through Nuneham Courtenay²⁵⁷.

- b. In respect of the **Clifton Hampden Conservation Area**, the construction and presence of the Scheme within the setting of the Conservation Area will have a minor temporary impact, resulting in a slight adverse effect, which is not EIA significant, and which comprises ‘less than substantial harm’ at the low end of the scale. The harm will be reversed once screening planting proposed in the landscape masterplans matures²⁵⁸. After this point the impact will reduce to negligible, resulting in a neutral effect, which is not EIA significant. Further, by reducing traffic volumes through the Conservation Area, the Scheme will provide a heritage benefit in enhancing understanding of the Conservation Area’s significance as a rural settlement. This will allow for greater appreciation of its architectural and historic interests, including those of its listed buildings²⁵⁹.
- c. In respect of the **Fullamoor Farmhouse Grade II listed building**, the construction and presence of the Scheme will result in a slight adverse effect which is not EIA significant. The Scheme will result in change to the ability to understand the land to the north of Abingdon Road as formerly being part of the farmland associated with the farmhouse, however this not something that it is readily understandable at present due to the previous development of this land firstly as part of the airfield, and subsequently as Culham Science Centre. In the terms of the NPPF the impact will result in ‘less than substantial’ harm to the asset at the low end of the scale²⁶⁰.
- d. In respect of a **Scheduled Monument** comprising rectangular enclosures and ditches with scattered pits, the Scheme will maintain the monument’s relationship with the River Thames, whilst further enclosing and isolating the monument on the west. As the monument’s heritage interest (sensitivity) lies

²⁵⁷ Dr Scott Further Heritage Technical Note dated 9 February 2024, paras. 2.1 – 2.3.

²⁵⁸ CDD.152

²⁵⁹ Dr Scott Heritage Technical Note, paras 2.41 – 2.16 (Appendix BG2.4).

²⁶⁰ Dr Scott Heritage Technical Note, paras. 2.52 – 2.57, and 3.1 – 3.6 (Appendix BG2.4).

primarily in its archaeological value, the ES assessed the change to its setting from the Scheme as resulting in a slight adverse effect. Even on Historic England's suggestion that the effect is moderate, Historic England still agree that the harm would be less than substantial²⁶¹.

148. Historic England made no objection to the application on heritage grounds²⁶², nor did the Conservation Officers for SODC²⁶³ and VWHDC²⁶⁴. OCC as LPA concluded that notwithstanding the great weight and importance that is to be attached to the relevant designated heritage assets, the public benefits arising from the development weigh heavily in favour of the development and outweigh the harm to the designated assets, and that the development is in accordance with national and development plan policies that seek to protect and enhance the historic environment²⁶⁵. The Applicant agrees with that assessment, taking into account the duties under s.66 (in respect of listed buildings and their settings)²⁶⁶ and s.72 (in respect of conservation areas)²⁶⁷ of the Planning (Listed Buildings and Conservation Areas) Act 1990, and considers that the heritage and other benefits firmly outweigh the limited heritage harm arising.

Conclusions on issue 11

149. Insofar as the Scheme does cause 'less than substantial' harm to the significance of any heritage asset, Mr Greep explained in his evidence²⁶⁸ that the public benefits of the Scheme considerably outweigh such harm for the purposes of NPPF²⁶⁹ para 208.

²⁶¹ ES Ch 7 paras. 7.10.19 – 7.10.20 (CDC.1, Annex 3); Historic England letter dated 21 December 2021 (CDE.2).

²⁶² Letter dated 21 December 2021 (CDE.22).

²⁶³ SODC consultation response 20 June 2023 (CDE.75).

²⁶⁴ VWHDC consultation response 4 February 2022 (CDE.33).

²⁶⁵ Officer report for 17-18 July 2023 committee meeting, para. 274 (CDF.1).

²⁶⁶ Section 66(1): "In considering whether to grant planning permission or permission in principle for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses."

²⁶⁷ Section 72(1): "In the exercise, with respect to any buildings or other land in a conservation area, of any functions under or by virtue of any of the provisions mentioned in subsection (2), special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area."

²⁶⁸ Greep EIC - Day 15, 19/4/24 and proof para 3.3.54

²⁶⁹ CD G.20

150. For the above reasons, there is no heritage reason for refusing planning permission for the Scheme.

Issue 12: whether the proposed scheme would be safe from flooding over its lifetime and the effect on flood risk elsewhere (including the arrangements for the management and maintenance of any surface water management features)

151. Considerable consultation was undertaken with the Environment Agency (“EA”) during the production of the flood risk model, the subsequent modelling and reporting, with the EA reviewing all aspects as they were produced²⁷⁰. A Flood Risk Assessment was submitted with the application, which concluded that, with mitigation in place, the Scheme will be at low risk of flooding, will be safe for the lifetime of the development and will not increase flood risk elsewhere, allowing for climate change effects²⁷¹. An area of compensatory flood storage on the northern bank of the River Thames (to the west of the proposed road alignment) is proposed, and the Thames crossing has been designed to account for flood water flows and climate change effects. Surface water would be managed through a series of sustainable urban drainage systems made up of swales, filters and drains, and several culverts are also proposed to manage flood waters and flows.

152. Further work was subsequently undertaken and clarification provided during the course of the application to address flood risk issues raised by the EA, and the EA withdrew its flood risk objection on 13 March 2023.²⁷² The Lead Local Flood Authority also raised no objection, and were satisfied with the drainage strategy subject to conditions²⁷³. OCC as LPA concluded that the Scheme was in accordance with development plan and national policy concerning flooding²⁷⁴. Agreed conditions are proposed to deal with these matters²⁷⁵.

²⁷⁰ ES Vol 3 Appendix 14.1: Flood Risk Assessment (September 2021), paras. 2.6.1 – 2.6.2, 2.7.1 – 2.7.2 (CDA.17.40).

²⁷¹ ES Vol 3 Appendix 14.1: Flood Risk Assessment (September 2021) (CDA.17.40). See in particular Table 4.8 (p.47), para. 6.1.5, and section 8.

²⁷² EA consultation response dated 13 March 2023 (CDE.64).

²⁷³ OCC as LLFA consultation response dated 2 March 2023 (CDE.95).

²⁷⁴ Paragraph 229 of the officer report for the 17-18 July 2023 committee meeting (see also paras. 220 – 228) (CDF.1).

²⁷⁵ Conditions 17 – 21 at para. 22 of the Statement of Common Ground dated 2 November 2023 (CDQ.1).

Conclusions on issue 12

153. For the above reasons, there is no flooding reason for refusing planning permission for the Scheme.

Issue 13: the effect of the proposal on the Green Belt

154. NPPF para. 155(c) provides that *“local transport infrastructure which can demonstrate a requirement for a Green Belt location”* is capable of not being inappropriate development in the Green Belt. The Scheme plainly falls within NPPF para. 155(c). It is local transport infrastructure, in the sense that it is not part of the strategic highway network serving a wider than local need²⁷⁶. It also cannot avoid the Green Belt, such that it can demonstrate a requirement for a Green Belt location. All of the land north of the Thames around Culham and Clifton Hampden is Green Belt²⁷⁷. It is not possible to cross the river anywhere in this location without entering the Green Belt, nor would it be possible to provide access to the STRAT8 and STRAT9 SOLP allocations, or provide a Clifton Hampden bypass, without doing so. Mr James suggested a completely different strategic alternative to HIF1 – for example one based only on cycling, walking and public transport – might not require development in the Green Belt, but the policy in NPPF para. 155(c) must be applied to the local transport infrastructure actually proposed.
155. In order to come within NPPF para. 155, developments must satisfy the proviso that they *“preserve [the Green Belt’s] openness and do not conflict with the purposes of including land within it”*. The Applicant considers that this proviso needs to be interpreted and applied realistically, so as to recognise that some harm to openness and some conflict with the purposes of the Green Belt will not prevent the proviso applying. If para. 155 required no impact at all to openness and Green Belt purposes, that would deprive the policy of almost all its utility, given that all local transport infrastructure will involve operational development and it is difficult to envisage local transport infrastructure that does not result in some impact on openness and Green Belt purposes. That cannot be a sensible or the intended interpretation of the policy. It is also notable that the policy does not say *“fully preserve openness”*, or *“avoid any conflict*

²⁷⁶ See Mr Greep’s proof at paras. 4.3.18 and 4.3.20.

²⁷⁷ See ES Fig. 8.8 Designations (CDA.16.13).

with Green Belt purposes”, or words to that effect. Rather its wording permits and requires the decision-maker to make an overall judgment on whether openness is preserved and conflict with Green Belt purposes is avoided. Some harm is compatible with reaching a positive answer to that question. This is the approach of the Secretary of State: see the Hinxtton appeal decision, in which the Inspector found that there was some harm to openness and some conflict with the Green Belt purpose of safeguarding the countryside from encroachment, but found that “the local transport infrastructure proposed in the Green Belt would not by reason of its nature and scale be sufficient to exceed the threshold set out at paragraph 146 of the Framework”²⁷⁸.

156. As to any impact on openness, the spatial and visual aspects of openness need to be considered. The absence of any significant residual effects in landscape terms beyond the site by operational year 15 (as assessed in the LVIA as set out above) indicates that in spatial terms, any impact on openness is limited. There are significant residual effects in visual terms at operational year 15, but these are localised and only rise to large adverse at two viewpoints on the Thames Path where the viewer is close to the Thames Bridge; the other significant residual visual effects in the Green Belt are moderate adverse only. This is an area of the Green Belt which is already characterised by transport infrastructure (road and rail) and built development (Clifton Hampden and the Culham Science Centre in particular). Apart from the Thames Bridge, the HIF1 Scheme in the Green Belt will largely comprise an at-grade road, with planting which will soften its impact. The Thames Bridge also maintains movement and views through the structure. Physical extent is also relevant: of the red line boundary of the scheme, 38.04 hectares is within the Green Belt, which amounts to only 0.25% of the total Green Belt land across South Oxfordshire District (and of those 38.04 hectares, the permanent land take only amounts to 24.81 hectares, which lowers the percentage figure further

²⁷⁸ See Mr Greep proof paras. 4.3.4 – 4.3.10; appeal decision APP/W0530/W/18/3210008, dated 9 April 2020, at Mr Greep appendix BG2.3c (pdf p.63). The Hinxtton appeal decision was determined by reference to the February 2019 version of the NPPF (see para. 10 of the decision letter). Paragraph 146, including 146(c), of the NPPF 2019 was identically worded to what is now paragraph 155 of the NPPF 2023. The ‘threshold’ referred to by the Secretary of State, i.e. the impact on openness and on Green Belt purposes, is therefore the same as that currently envisaged by paragraph 155 of the NPPF 2023.

still); and this is only a proportion of the total Oxford Green Belt which extends across other districts also²⁷⁹.

157. As to Green Belt purposes in NPPF para. 143, there is no conflict with purposes (a) (“to check the unrestricted sprawl of large built-up areas”), (b) (“to prevent neighbouring towns merging into one another”) or (e) (“to assist in urban regeneration, by encouraging the recycling of derelict and other urban land”). Nor is there any conflict with (d) (“to preserve the setting and special character of historic towns”). There is no impact on the setting of any historic town, for example Abingdon. Nuneham Courtenay and Clifton Hampden are not ‘historic towns’, and in any event any such harm to their conservation areas is at the low end of less than substantial harm, which would be insufficient to give rise to conflict with purpose (d). Finally, as to purpose (c) (“to assist in safeguarding the countryside from encroachment”), there is some impact on this purpose given the landscape and visual effects set out above, but it is limited due to the localised nature of those effects and the nature of the Green Belt in this location²⁸⁰.

Conclusions on issue 13

158. Overall, in light of all of the above, the Applicant considers that openness is preserved and there is no conflict with purposes, such that the Scheme constitutes ‘not inappropriate’ development in the Green Belt within the context of NPPF paragraph 155(c).

159. If the Inspector or Secretary of State takes the contrary view, such that the Scheme constitutes inappropriate development in the Green Belt outside the scope of NPPF para. 155, then the Applicant considers that very special circumstances clearly exist so as to justify the Scheme and result in there being no conflict with Green Belt policy. These very special circumstances are discussed below as part of the planning balance.

²⁷⁹ See figures in Mr Greep’s proof paras. 4.2.1 – 4.2.12, including Tables 4.1 and 4.2.

²⁸⁰ See Mr Greep’s proof paras. 5.2.8 – 5.2.12 and his oral evidence (day 15, 19 April 2024). To the extent that Ms Ash’s written evidence suggested that there might be conflict with purposes (b) and (d), she clarified in oral evidence that there was no such conflict. Although she considered from a landscape and visual point of view that there was some impact on purpose (c), it was limited in scope and localised.

Issue 14: Other policy matters and the overall planning balance

The position of OCC as LPA

160. Although many of the Inspector's issues derive from issues originally raised by OCC as LPA, it should be noted that OCC as LPA no longer objects to the Scheme, either as to the principle or on any technical matters, and at their meeting on 27 September 2023 resolved to adopt "*an overall neutral position*"²⁸¹. A supplementary statement of common ground between the LPA and the Applicant dated 9 January 2024 confirms that "*The Applicant and the LPA do not have any matters of dispute between them*"²⁸².

Other policy matters

161. Viability has been raised by certain objectors. As agreed, the Applicant will make closing submissions on that issue after the Applicant's viability evidence has been heard in the Orders part of the conjoined inquiries.

Very special circumstances

162. If, contrary to the Applicant's primary case, it is concluded that the Scheme is inappropriate development in the Green Belt, then the Applicant submits that very special circumstances clearly exist within NPPF para. 153.
163. The Scheme meets a pressing need and gives rise to numerous and wide-ranging benefits, which individually and cumulatively attract substantial weight. Most significantly, and as set out in detail under Issue 1 (need and benefits) above, the Scheme enables planned housing and employment growth in the Science Vale to come forward, which is central to the development plan ambitions for the area in the SOLP, VWHLPP1 and VWHLPP2, and Government policy in the NPPF, in particular paras. 60, 74 and 85-86 concerning boosting the supply of housing, planning for larger scale development supported by the necessary infrastructure, supporting economic growth and productivity, and addressing potential barriers to investment including inadequate

²⁸¹ CDF.6: printed minutes of the 27 September 2023 meeting. See also the confirmation of this in the statement of common ground between the LPA and the Applicant dated 2 November 2023, at para. 15 (CDQ.1).

²⁸² Paragraph 6 (CDQ.2).

infrastructure and insufficient housing. There are also further benefits in respect of: transport, in particular reducing congestion, improving access to homes and jobs, facilitating better public transport, and providing better infrastructure for active travel; noise and amenity, by diverting existing and future traffic away from villages and settlements; health, due to the noise and active travel benefits; and biodiversity net gain.

164. In terms of harm:

- a. In addition to the harm by reason of inappropriateness, there is some harm to Green Belt openness and some harm to the Green Belt purpose of safeguarding the countryside from encroachment, but the harm is relatively localised and limited in scale and level, as set out above.
- b. There is some landscape and visual harm, but again it is relatively localised and should not be overstated.
- c. There is some less than substantial heritage harm at the low end of the scale.

165. This harm is clearly outweighed by the need for and benefits of the Scheme, such that the very special circumstances test in NPPF para. 153 is met. Indeed, even if the level of that harm were to be assessed as materially higher than the Applicant's assessment, it would still be outweighed by the need and the benefits, such is their extent and the weight which they attract.

The Secretary of State's matters

166. As to the Secretary of State's matters on which he particularly wishes to be informed:

- a. The Scheme is entirely consistent with Government policies for delivering a sufficient supply of homes in NPPF Chapter 5, for the reasons set out above;
- b. The Scheme is entirely consistent with Government policies for building a strong, competitive economy in NPPF Chapter 6, for the reasons set out above;
- c. The Scheme is in accordance with the development plan overall, for the reasons set out below.

S.38(6) of the Planning and Compulsory Purchase Act 2004: accordance with the development plan

167. Section 38(6) requires an assessment of whether there is compliance or conflict with the development plan overall. As held in *R v Rochdale Metropolitan Borough Council ex parte Milne* [2001] Env LR 22 by Mr Justice Sullivan (as he then was), it is well-established that development plan policies may “pull in different directions”, and the decision-maker must accordingly “make a judgment bearing in mind such factors as the importance of the policies which are complied with or infringed, and the extent of compliance or breach”²⁸³. The Judge went on to state: “... I regard as untenable the proposition that if there is a breach of any one policy in a development plan a proposed development cannot be said to be “in accordance with the plan”. Given the numerous conflicting interests that development plans seek to reconcile: the needs for more housing, more employment, more leisure and recreational facilities, for improved transport facilities, the protection of listed buildings and attractive land escapes etc., it would be difficult to find any project of any significance that was wholly in accord with every relevant policy in the development plan”.
168. In the present case, there is some conflict with the development plan policies which provide for the protection of the environment due to some adverse landscape and visual effects, in particular: ENV1 of the SOLP; and CP44 of the VWHLPP1. That is the extent of the conflict with the development plan (including the District Local Plans and the Culham Neighbourhood Plan). Mr Greep’s written evidence comprehensively goes through the relevant policies of the development plan and, for all the reasons already set out in these closing submissions, only finds this level of conflict²⁸⁴. Some conflict in this respect plainly does not preclude compliance with the development plan overall, given the relatively modest nature of the conflict, particularly when seen in the context of the scale of the Scheme as a whole, and the fact that some adverse effects in this respect are likely to be inevitable when delivering infrastructure of this nature and size. The Scheme is also expressly supported in the development plan.

²⁸³ Paragraphs 47 – 50.

²⁸⁴ Mr Greep’s proof section 3.3.

169. Accordingly, there is compliance with the development plan overall. Indeed, the Scheme is central to the development plan, which heavily depends upon it. The Scheme therefore benefits from the presumption in favour in s.38(6) of the Planning and Compulsory Purchase Act 2004.

The planning balance

170. There are no material considerations which come close to indicating that the application should be determined other than in accordance with the development plan. Any adverse environmental effects are heavily outweighed by the benefits; the adverse effects are few and far between and the overall environmental picture is very positive. Overall, this is an important, significantly beneficial and urgently needed Scheme, and the planning balance comes down overwhelmingly in favour of the grant of permission. That is the case even if the Secretary of State were to find, contrary to the Applicant's case, conflict with the development plan overall. Such conflict would be outweighed by the very weighty need and benefits, such that the planning balance would still mean that permission should be granted.

Conclusion

171. For all the above reasons, the Applicant asks that planning permission be granted for the Scheme.

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